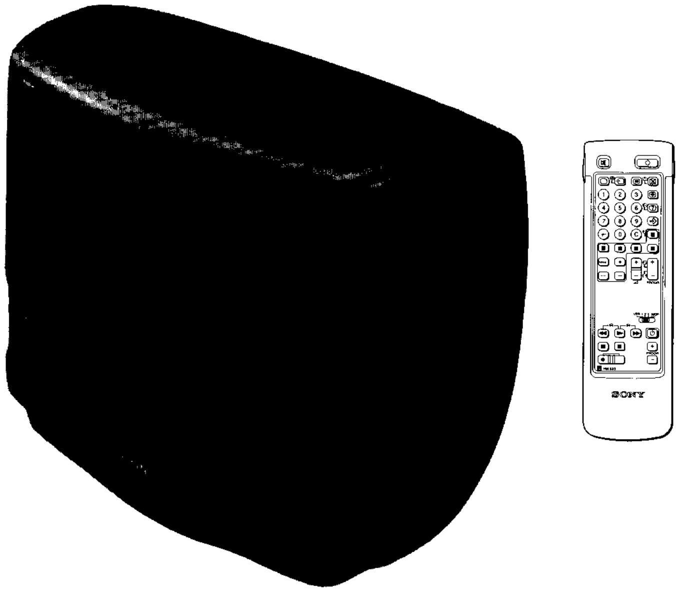
SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-B2931A	RM-833	Italian	SCC-G81P-A
KV-B2933B	RM-833	French	SCC-G85M-A

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-B2931D	RM-833	AEP	SCC-G77P-A
KV-B2933E	RM-833	Spanish	SCC-G82N-A



MICROFILM

TRINITRON® COLOUR TV

SONY®

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
Italian	B/G/H	GERMAN Stereo	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10 ,U1-U10 ITALIA VHF: A-H2	PAL NTSC 3.58/NTSC 4.43 (Video In)
French	B/G/H, L, I	GERMAN/NICAM Stereo	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10 ,U1-U10 ITALIA VHF: A-H2 SECAM L VHF: F02-F10 UHF: F21-F69 CABLE(France) VHF: B-Q UHF: S21-S41 I UHF: B21-B69	PAL, SECAM NTSC 3.58/NTSC 4.43 (Video In)
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10 ,U1-U10 ITALIA VHF: A-H2 SECAM D/K VHF: R01-R12 UHF: R21-R60	PAL, SECAM NTSC 3.58/NTSC 4.43 (Video In)
Spanish	B/G/H	GERMAN/NICAM Stereo	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10 ,U1-U10 ITALIA VHF: A-H2	PAL, SECAM NTSC 3.58/NTSC 4.43 (Video In)

MODEL	Italian	French	AEP	Spanish
Power Consumption	106W	105Wh	105W	105W

Specifications

Picture tube	Super Trinitron Approx. 72 cm (29 inches) (Approx. 68 cm picture measured diagonally) 110° -deflection

Input/Output Terminals

[REAR]

⇥ 1 21-pin Euro connector (CENELEC standard)
- Inputs for audio and video signals
- inputs for RGB
- outputs of TV video and audio signals

⊖ 2/⊕ 2 21-pin Euro connector
- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals (selectable)

[FRONT]

⊖3 Video input-phono jack
≤ 3 Audio inputs-phono jacks
⊕ 3 S video input - 4-pin DIN
Ω Headphone jack - Stereo minijack

Sound output	2x30W (Music power)
Approx.	751 x 578 x 530 mm
Weight	Approx. 48.5 kg

Supplied accessories	RM-833 Remote Commander (1) IEC designation R6 battery (1)
Other features	Fastext/TOP-Text Nicam

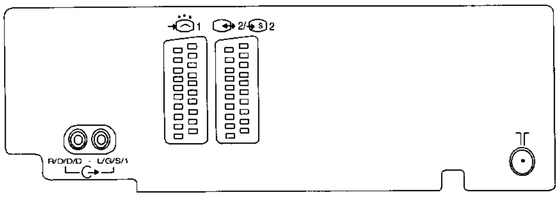
[RM-833]

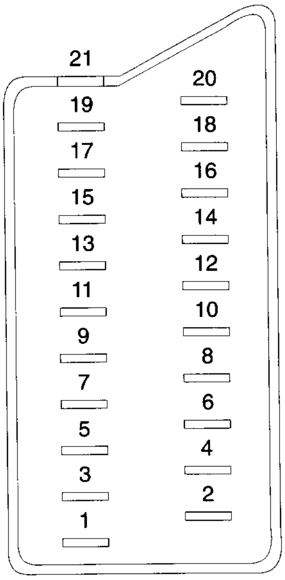
Remote control system	infrared control
Power requirements	1.5V dc 1 battery IEC designation R6 (size AA)
Dimensions	Approx. 65 x 222 x 21 mm (w/h/d)
Weight	Approx. 157g (Not including battery)

Design and specifications are subject to change without notice.

Model name / Item	KV-B2931A	KV-B2933B	KV-B2931D	KV-B2933E
Pal Comb	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF
RGB Priority	ON	ON	OFF	OFF
Scart 1	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON
Norm B/G/H	ON	ON	ON	ON
Norm I	OFF	ON	OFF	OFF
Norm D/K	OFF	OFF	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF
TOP-Text	ON	ON	ON	ON
Nicam stereo	OFF	ON	OFF	ON
Language Preset	Italian	French	German	Spanish

21 pin connector (→⊙1 / ⊖2)

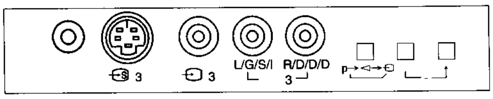




Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level: 0.5Vrms Output impedance:less than 1kohm*
2	○	○	Audio input B (right)	Standard level:0.5Vrms Input impedance:More than 10kohms*
3	○	○	Audio output A (left)	Standard level:0.5Vrms Output impedance:less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level:0.5Vrms Input impedance:More than 10kohms*
7	○	●	Blue input	0.7V±3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5—12V):Part mode Low state (0—2V):TV mode Input impedance:More than 10kohms Input capacitance:Less than 2nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal:0.7V±3dB. 75ohms, positive
12	○	○	Open	
13	○	○	Ground(red)	
14	○	○	Ground (blanking)	
15	○	—	Red input	0.7V±3dB, 75ohms, positive
	—	○	(S signal) croma input	0.3V±3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1—3V) Low state (0—0.4V) Input impedance:75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V±3dB, 75ohms, positive Sync:0.3V(-3, +10dB)
20	○	—	Video input	1V±3dB, 75ohms, positive Sync:0.3V(-3, +10dB)
	—	○	Video Input/Y (S signal)	1V±3dB, 75ohms, positive Sync:0.3V(-3, +10dB)
21	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm , positive Sync. 0.3V -3/+10 dB
4	C (S signal) input	0.3V ± 3dB 75 ohm , positive Sync.



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6. EXPLODED VIEWS

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

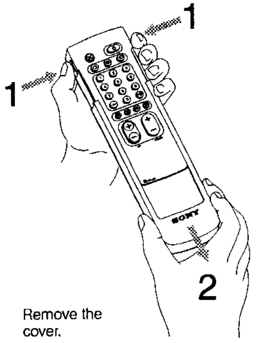
LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

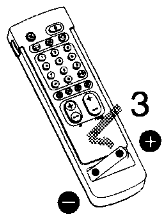
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Getting Started

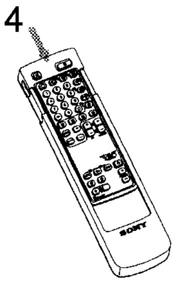
Inserting the Battery Into the Remote Commander



Remove the cover.



Check the correct polarity.



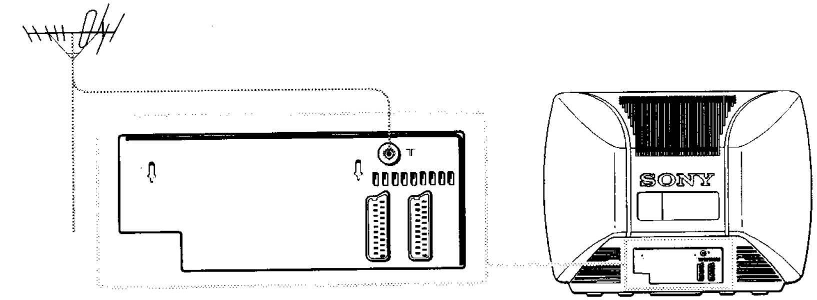
Refit the outside cover making sure that the Full Function side is visible.

About Battery Life
Under normal operation, a battery will last up to half a year.

Always remember to dispose of used battery in an environmental friendly way.

Connecting the Aerial

Connect the aerial to the ⫪ socket at the rear of the TV.
(cable not supplied)



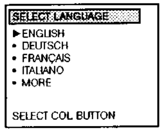
Choosing a Language

(See inside of front cover and back cover)

1. **Depress ⏻ A on the TV.**
The TV turns on. If the standby indicator B on the TV is lit, press ▢ ❸ or any number button ❹ on the Remote Commander.

2. **Press MENU ❼ on the Remote Commander.**
The SELECT LANGUAGE screen appears.

3. **Press one of the colour buttons ⓱ on the Remote Commander to select a language (Press the white button ⓱ to display other language alternatives).** The SELECT LANGUAGE screen clears and all subsequent menus appear in the chosen language.



SELECT LANGUAGE
▶ENGLISH
• DEUTSCH
• FRANÇAIS
• ITALIANO
• MORE

SELECT COL BUTTON

Note: From the second time when you turn on the TV, the MENU screen appears instead of the SELECT LANGUAGE screen. Press the yellow button ⓱ then press the white button ⓱ to redisplay the SELECT LANGUAGE screen.

Tuning in to Channels

You can tune in up to 100 channels to programme positions either automatically or manually.

auto tuning:	A single button press allows all receivable channels to be tuned. Use if you are unfamiliar with the channel numbers of stations.
manual tuning:	Use if you are familiar with the channel numbers of stations.

Choose the more appropriate way for you.

Tuning in to Channels Automatically

There are two possibilities for auto tuning;

A. On the TV: hold down ⏩ E on the front of the TV for 2 seconds
Note: The button ⏩ E for Automatic Presetting of channels is protected to prevent accidental usage. Use the tip of a pencil to press it.
or

B. On the Remote Commander: as follows

1. **Press MENU ❼.**

2. **Press the white button ⓱.**

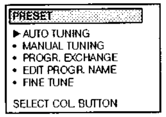
3. **Hold down the red button ⓱ for 2 seconds,**

Note: Press the green button ⓱ to cancel.

Tuning in to Channels Manually

1. **Press MENU ❼.**
The MENU screen appears.

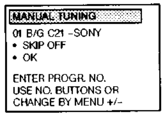
2. **Press the white button ⓱ to select PRESET.**
The PRESET screen appears.



PRESET
▶ AUTO TUNING
• MANUAL TUNING
• PROGR. EXCHANGE
• EDIT PROGR. NAME
• FINE TUNE

SELECT COL. BUTTON

3. **Press the green button ⓱ to select MANUAL TUNING**
The MANUAL TUNING screen appears.

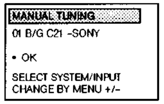


MANUAL TUNING
01 B/G C21 -SONY
• SKIP OFF
• OK

ENTER PROGR. NO.
USE NO. BUTTONS OR
CHANGE BY MENU +/–

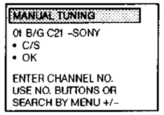
4 Press the number buttons ❹ or MENU +/– ❾ to select a programme position.
If you use the number buttons ❹, enter a double-digit number. (e.g. for programme number 4, first press 0, then 4)

5 Press the green button ⓱.


MANUAL TUNING
01 B/G C21 –SONY
• OK
SELECT SYSTEM/INPUT
CHANGE BY MENU +/–

Note: Use MENU +/– ❾ to select TV system.
You can alternatively select input sources which may be assigned to programme positions.
The display changes as follows:
B/G ➡ D/K ➡ AV1 ➡ RGB ➡ AV2 ➡ YC2 ➡ AV3 ➡ YC3

6 Pess the green button ⓱.


MANUAL TUNING
01 B/G C21 –SONY
• C/S
• OK
ENTER CHANNEL NO.
USE NO. BUTTONS OR
SEARCH BY MENU +/–

Note: If a video input source is selected in step 5, this is now stored.
Refer to step 4 to tune other programme positions.

7 If you have selected B/G in step 5, press the red button ⓱ to select C (regular channel) or S (cable channel).

8 Press the number buttons ❹ or MENU+/– ❾ to select the channel number.
If you use the number buttons ❹, enter a double-digit number. (e.g. for channel 23, first press 2, then 3)

9 Press the green button ⓱ to store.

Note: If you want to preset other channels, repeat steps 4 to 9.

10 Press MENU ❼ twice to return to the normal screen.

Note: You can skip unused programme positions when selecting programmes with the PROGR +/– buttons ⓭.
Press the red button ⓱ to skip in step 4. However, the skipped programmes may still be called up when you use the number buttons.

Basic TV Operations

Turning the TV on and off

Turning on
Depress ⏻ A on the TV.

Turning off temporarily
Press ⏻ ❿ on the Remote Commander.
The TV enters standby mode and the standby indicator B on the front of the TV lights up.

Turning on again
Press ▭ ❸, PROGR +/– ⓭, or one of the number buttons ❹ on the Remote Commander.

Turning off completely
Depress ⏻ A on the TV.
Note: It is recommended to use ⏻ A to turn off the TV.
This could help you save energy.

Selecting TV Programmes

Press PROGR +/– ⓭ or press the number buttons ❹.

To select a double-digit number
Press -/-- ❺, then the number buttons ❹.

Adjusting the Volume

Press ◿ +/– ⓳.

Muting the Sound

Press 🔇 ❶
To resume normal sound, press 🔇 ❶ again.

Displaying the On-screen Indications

Press ⊞ ⓲ once to display the on-screen indications.
Press again to make the indications disappear.

Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can adjust or select the functions as follows:
Press ◿ +/– D to adjust the volume.
Press P +/– C to select programme numbers or to turn the TV on from the standby mode.
Press ⇥ E to select the input source.
Press ⇥▢ F to preset channels automatically.

Advanced TV Operations

Operating the Menu System

You can adjust picture and sound, preset channels to programme positions and utilise other convenient features by using the following menu system.

Press:	**to:**
1 MENU ❼	enter the MENU screen
2 a colour button ⓱	select an item you want to change (The selected item is marked by a triangle.)
3 MENU +/– ❾	change (or adjust) the contents of the item
4 MENU ❼	return to the MENU screen
5 MENU ❼ again	return to the normal screen
Press MENU ❼ once or twice whenever you want to return to the normal screen.	

Note: When selecting menus, the picture becomes darker.
If, however, an item in the PICTURE ADJUSTMENT menu is selected, normal level of TV picture is restored to allow the best adjustment.

Adjusting the Picture and Sound

Although picture and sound are adjusted at the factory you can adjust them to suit your own taste.

1 Press MENU ❼.
The MENU screen appears.

2 Press the red button ⓱ to select PICTURE or the green button ⓱ to select SOUND.

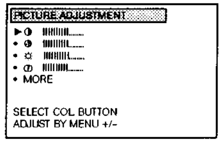
3 Press the respective colour button ⓱ to select an item.

4 Press MENU +/– ❾ to adjust.

5 Press MENU ❼ twice or wait until the menu displays disappear automatically to return to the normal screen.

PICTURE ADJUSTMENT

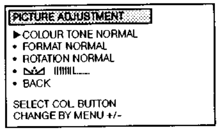
(First Page)


PICTURE ADJUSTMENT
▶◑
• ◕
• ☼
• ◫
• MORE
SELECT COL BUTTON
ADJUST BY MENU +/–

Press colour button	Effect
Red: For Picture ◑	Less —+— More
Green: For Colour ◕	Less —+— More
Yellow: For Brightness ☼	Darker —+— Brighter
Blue: For Sharpness ◫	Softer —+— Sharper
White:	Next page of PICTURE ADJUSTMENT

PICTURE ADJUSTMENT

(Second Page)

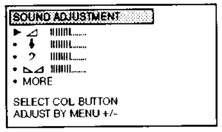

PICTURE ADJUSTMENT
▶COLOUR TONE NORMAL
• FORMAT NORMAL
• ROTATION NORMAL
• ⧩ IIIIIIL.....
• BACK
SELECT COL BUTTON
CHANGE BY MENU +/-

Press colour button	Effect
Red: For Colour Tone	Normal ⇨ Warm (reddish colour tone) ⇨ Cool (blueish colour tone)
Green: For Format	Normal: Normal setting 16:9 Wide screen effect
Yellow: For Picture Rotation (only for KV-B2931D)	Normal: Normal setting -5 ~ +5: Adjust the picture slant which may be caused by the earth magnetism
Blue: For Hue control ⧩ (only for NTSC video signals)	Reddish —+— Greenish
White:	Back to first page of PICTURE ADJUSTMENT

Note: Press →•← ❽ on the Remote Commander to reset to the factory preset levels for picture and sound.

SOUND ADJUSTMENT

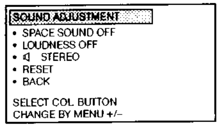
(First Page)


SOUND ADJUSTMENT
▶ ⊿ IIIIIIL.....
• 𝄞 IIIIIIL.....
• 𝄢 IIIIIIL.....
• ◺◿ IIIIIIL.....
• MORE
SELECT COL BUTTON
ADJUST BY MENU +/-

Press colour button	Effect
Red: For Volume ⊿	Less —+— More
Green: For Treble 𝄞	Less —+— More
Yellow: For Bass 𝄢	Less —+— More
Blue: For Balance ◺◿	More left – more right
White:	Next page of SOUND ADJUSTMENT

SOUND ADJUSTMENT

(Second Page)


SOUND ADJUSTMENT
• SPACE SOUND OFF
• LOUDNESS OFF
• 🔈 STEREO
• RESET
• BACK
SELECT COL BUTTON
CHANGE BY MENU +/–

Press colour button	Effect
Red: For Space Sound	OFF: normal sound ON: for a special acoustic sound effect
Green: For Loudness	OFF: normal sound ON: when listening to low volume sound
Yellow: For Stereo/Dual	Stereo ⇨ Mono A (left channel) ⇨ Mono B (right channel) ⇨ Mono
Blue: For Reset	Resets picture and sound to the factory preset levels.
White:	Back to first page of SOUND ADJUSTMENT

Note: Press →•← ❽ on the Remote Commander to reset to the factory preset levels for picture and sound.

Using Special Features

With your TV you can utilise special features such as Parental Lock or Sleep Timer.

1 **Press MENU ❼.**
The MENU screen appears.

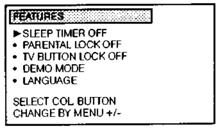
2 **Press the yellow button ⓱ to select FEATURES.**

3 **Press the respective colour button ⓱ to select an item.**

4 **Press MENU +/– ❾ to change.**

5 **Press MENU ❼ twice or wait until the menu displays disappear automatically to return to the normal screen.**

FEATURES


FEATURES
▶SLEEP TIMER OFF
• PARENTAL LOCK OFF
• TV BUTTON LOCK OFF
• DEMO MODE
• LANGUAGE
SELECT COL BUTTON
CHANGE BY MENU +/-

Press colour button	Effect
Red: For Sleep Timer (Automatic switch off function)	OFF ⇨ 0:30 ⇨ 1:00 ⇨ 1:30 ⇨ 2:00 (hours) After the selected time the TV set switches itself automatically into standby mode.
Green: For Parental Lock (For preventing children from watching programmes which you consider unsuitable)	OFF: Normal setting ON: The TV-channel you are watching is now blocked. In this way you can prevent undesirable broadcasts from appearing on the screen.
Yellow For TV Button Lock	OFF: Normal setting ON: The buttons on the TV do not function anymore. (The Remote Commander still operates)
Blue: For Demo Mode	ON: A sequence of menu pictures is displayed. Press any button on the Remote Commander to stop the function.
White: For Language	The SELECT LANGUAGE screen appears.

Advanced Presetting Functions

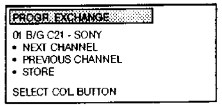
Exchanging Programme Positions

You can exchange the programme positions to a preferred order (example: exchange programme 09 (channel C21) with programme 15 (channel C24)).

1 **Press MENU ❼.**
The MENU screen appears

2 **Press the white button ⓰.**
The PRESET screen appears.

3 **Press the yellow button ⓱.**
The PROGR. EXCHANGE SCREEN appears.


PROGR. EXCHANGE
01 B/G C21 - SONY
• NEXT CHANNEL
• PREVIOUS CHANNEL
• STORE
SELECT COL BUTTON

4 **Press the white button ⓰ repeatedly until the desired programme number (09) appears.**

5 **Press the red or the green button ⓱ repeatedly until the desired channel number (C24) appears.**

6 **Press the white button ⓰ to store.**
Now the exchange has been completed. Channel C24 is tuned in to programme 09 and channel C21 is tuned in to programme 15.

7 **Press MENU ❼ twice to return to the normal screen.**

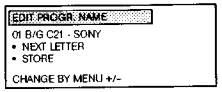
Editing Programme Names

In case of channels, which broadcast VPS signals, programme names are usually stored automatically during presetting of channels. You can also edit the programme names up to five letters.

1 **Press MENU ❼**
The MENU screen appears.

2 **Press the white button ⓰.**
The PRESET screen appears.

3 **Press the blue button ⓱.**
The EDIT PROGR. NAME screen appears.
The first character flashes.


EDIT PROGR. NAME
01 B/G C21 - SONY
• NEXT LETTER
• STORE
CHANGE BY MENU +/–

4 **Press MENU +/– ❾ to edit the first letter.**
The first letter changes as follows
A ⟷ B ⟷ … ⟷ Z ⟷ 1 ⟷ … 9 ⟷ "–" (space).

5 **Press the red button ⓱ to move to the next letter.**

6 **Repeat steps 4 to 5, until the fifth letter is chosen.**

7 **Press the green button ⓱.**
The programme name is stored, and the normal screen appears. To edit another programme name, repeat steps 1 to 7.

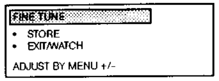
Fine Tuning

You can adjust the receiving conditions by the FINE TUNE function.

1 **Press MENU ❼**
The MENU screen appears.

2 **Press the white button ⓱.**
The PRESET screen appears.

3 **Press the white button ⓱ again.**
The FINE TUNE screen appears.



FINE TUNE
- STORE
- EXIT/WATCH

ADJUST BY MENU +/–

4 **Press MENU +/– ❾ to adjust the receiving condition.**

5 **Press the red button ⓱ to store the adjustment, or press the green button ⓱ not to store.**
Now the normal screen appears. If you have pressed the green button, the fine tuned condition is cancelled once you choose another programme.

Note: If the FINE TUNE screen disappears automatically before you press the red button ⓱, the fine tuned condition is not stored. Repeat steps 1 to 5.

Tuning In to a Channel Temporarily

You can tune in to a channel temporarily, even when it has not been preset.

1 **Press C ⓰ on the Remote Commander.**
For cable channels press **C** ⓰ twice. The indication "C" (or "S" for cable channels) appears on the screen.

2 **Enter a double digit channel number using the number buttons (e.g. for channel 23, first press 2, then 3).**
The channel appears.
However, the channel is not stored.

Teletext Operation

TV stations broadcast teletext programmes via the TV channels. For basic operation of teletext, use the simple side of the Remote Commander. For the advanced features of teletext, use the buttons indicated in green on the full function side of the Remote Commander.

Basic Teletext Operation

Switching Teletext on and off

1 **Select the channel which carries the teletext service you wish to view.**

2 **Press ⊜ ⓫ to display Teletext.**
If no teletext signal is broadcast, the indication P100 is displayed on a black screen.

3 **Input three digits for the page number using the number buttons ❹.**
The numbers are displayed on the screen and the requested page appears in a few seconds.
Note: If you make a mistake, type in any three digits, then re-enter the correct page number.

4 **Press ▢ ❸ to return to the TV mode.**

Notes:
- To change the teletext channels. First press ▢ ❸ to return to the TV mode, then repeat steps 1 to 3.
- If the signal of a TV channel is weak, teletext errors may occur.

Advanced Teletext Operation

Using Fastext

With Fastext you can access pages with one button press.
When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons ❻ on the Remote Commander.
Press the corresponding colour button ❻ on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed in a few seconds.

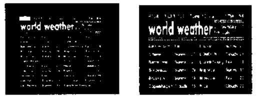
Requesting the Index page
Press ⓘ ⓱. The Index page appears.

Accessing the next or preceding page
Press ⊟ (PAGE –) or ⊟ (PAGE +) ⓭. The next or the preceding page appears on the screen.

Superimposing the teletext display on the TV picture
Press ⊜ ⓫ once if you are in text mode or press ⊜ ⓫ twice if in TV mode.
To return to the normal teletext display press ⊜ ⓫ twice.

Preventing a teletext page from being updated or changed
Press ⊞ (HOLD) ❷. The HOLD symbol (⊞) appears on the screen and the selected subpage is held until you press ⊜ ⓫ to cancel.

Enlarging the teletext display
Press ⊕ ⓲ once to enlarge the upper half. Press twice to enlarge the lower half.
Press again to restore the normal display.



Revealing concealed information (e.g. answers to a quiz)
Press ⑦ (REVEAL) ⓭. The information is revealed. Press ⑦ ⓮ again to conceal the information.

Watching TV while waiting for a requested page to be displayed

1 **Request a new teletext page.**

2 **Press ☒ (TEXT CL) ⓬.**
The TV programme is displayed and the symbol ⊜ is displayed at the top of the page.
Note: When the requested page is available the page number is displayed at the top of the screen.

3 **Press ⊜ ⓫ to view the page.**

To cancel the request
Display the teletext page, then press ⊜ ⓫. The request is now cancelled. Press ▢ ❸ to resume TV mode.

Using the Favourite Page system
You can store up to four of your favourite teletext pages per programme with the help of the Favourite page system. In this way you have quick access to the pages you watch frequently.

Storing the Favourite Pages

1 **Select the page you would like to store using the number buttons ❹.**

2 **Press ⇢ ⓯ twice.**
The colour prompts at the bottom of the screen flash.

3 **Press any of the colour buttons ❻ on the Remote Commander to store the selected page.**
The page is now stored on this button.

Repeat steps 1 to 3 for the other 3 pages available.

Displaying the Favourite pages

1 **Press ⇢ ⓯.**

2 **Press the colour button ❻ corresponding to the colour prompt onto which the desired page is stored.**
The page is requested. (It may take a few seconds to be received).

Note: Step 1 must be taken before every favourite page selection otherwise the normal Fastext facility operates.

Using the Time Function in the TV mode
Press ◎ ⓲ to request the time. Press again to cancel the request.
Note: This function is available only when teletext is broadcast.

Connecting Other Equipment

You can connect optional audio/video equipment to this TV such as VCRs, video disc players, cameras or stereo systems.

Connector	Acceptable input signal	Available output signal
-⊛ 1 M (AV1/RGB)	Audio/video and RGB signal	Audio/video signal from TV Tuner
⊖→2/-Ⓢ 2 L (AV2/YC2)	Audio/video and S-video signal	Audio/video signal from selected source
-⊖3/-⊖3 G H (AV3)	Audio/video signal	No outputs
-⊖3/-Ⓢ3 G I (YC3)	Audio/S-video signal	No outputs

To watch a video input picture, press -⊖ ❷ until the desired video input appears.
To return to the normal TV picture, press -⊖ ❷ repeatedly or press ▢ ❸.
If you have a decoder, connect it to -⊛ 1 M

Connecting a VCR Using the TV Aerial Terminal

Connect the aerial output of the VCR to the aerial terminal K of the TV. It is recommended to tune in the VCR signal to programme number "0". For details, see "Tuning in to Channels Manually" on page 20.

S video input (Y/C input) I L.
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.
Separating the Y and C signals prevents them from interfering with each other and therefore improves the picture quality (especially luminance). This TV is equipped with 2 video input terminals through which these signals can be input directly.

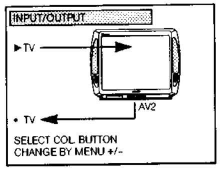
Checking and Selecting the Input and Output Sources Using the Menu

You can display a menu screen to see which input and output source are selected. You can also change the selecting using this menu.

Checking the Input and Output Sources

1 **Press MENU ❼.**
The MENU screen appears.

2 **Press the blue button ⓱ to select INPUT/OUTPUT.**
The INPUT/OUTPUT screen appears.


INPUT/OUTPUT

SELECT COL BUTTON
CHANGE BY MENU +/-

Selecting an Input Signal

Press the red button ⓱ to select INPUT. Press MENU +/- ❾ to select the desired input source.
You can select among the following sources:

TV ⟷ AV1 ⟷ RGB ⟷ AV2 ⟷ YC2 ⟷ AV3 ⟷ YC3

Selecting an Output Signal

The ⊖→2/-Ⓢ 2 connector L outputs the source input from the other connectors. Press the green button ⓱ to select OUTPUT. Press MENU +/- ❾ to select the desired output source.
You can select among the following sources:

TV ⟷ AV1 ⟷ AV2 ⟷ YC2 ⟷ AV3 ⟷ YC3

Note: Press ❼ twice or wait until the menu display disappears automatically to return to the normal screen.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8 mm or VHS VCRs or video disc players.

Tuning the Remote Comander to the equipment

1 **Set the VTR 1/2/3 MDP selector ⑳ according to the equipment you want to control:**
VTR 1: Beta or VCR
VTR 2: 8mm VCR
VTR 3: VHS VCR
MDP: Video Disc Player

2 **Use the buttons ㉑ to operate the additional equipment.**

Notes:
- If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MCP selector on the TV Remote Commander.
- If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate
- When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

Using Headphones

You can utilise headphones. Connect them to the headphone jack J, then the sound from the speakers goes off.
Note: You can't control the sound adjustment except for volume.

For your Information

Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

No picture (screen is dark), no sound
- Plug the TV in.
- Press ⏻ A on the TV. (If the standby indicator B is lit, press ▢ ❸ or any number button ❹ on the Remote Commander.)
- Check if the selected video source is on.
- Turn the TV off for three or four seconds and then turn it on again using ⏻ A.

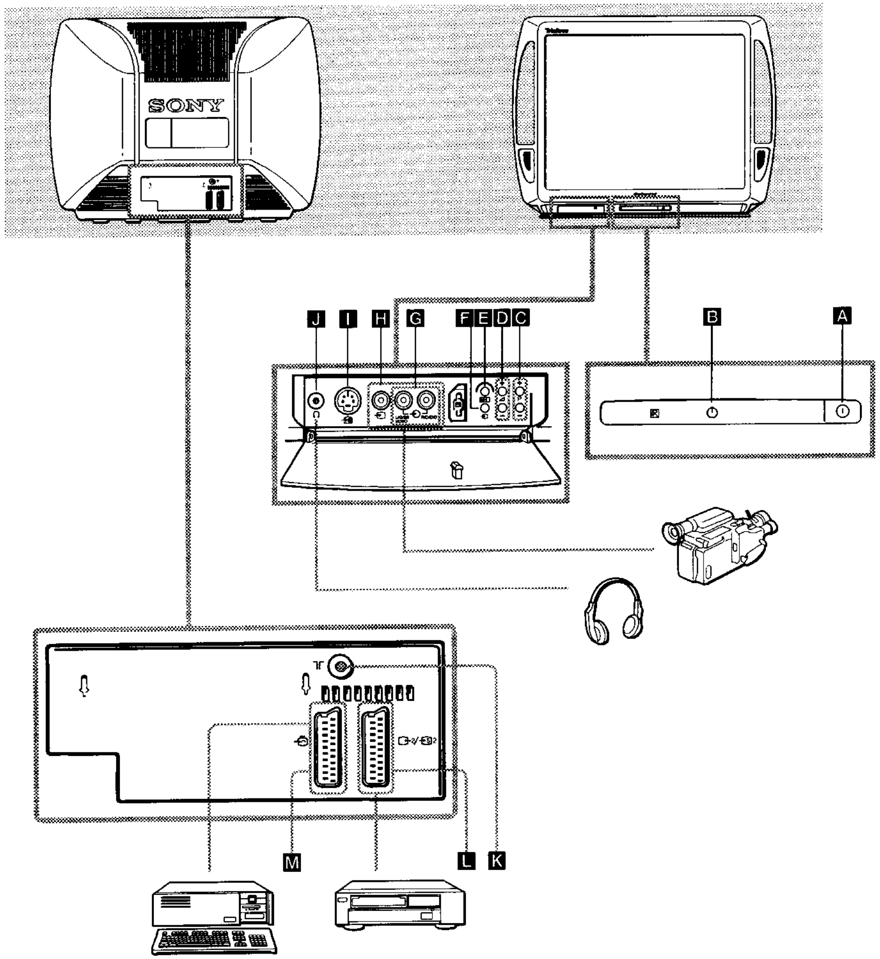
Poor or no picture (screen is dark), but good sound
- Press MENU ❼ to enter the MENU screen, and press the red button ⓱, then adjust ◑ and ☼.

Good picture but no sound
- Press ◢ + ⓳.
- If 🔇 is displayed on the screen, press 🔇 ❶.

No colour for colour programmes
- Press MENU ❼ to enter the MENU screen, and press the red button ⓱, then adjust ◕.

Remote Commander does not funcion
- Replace the battery.

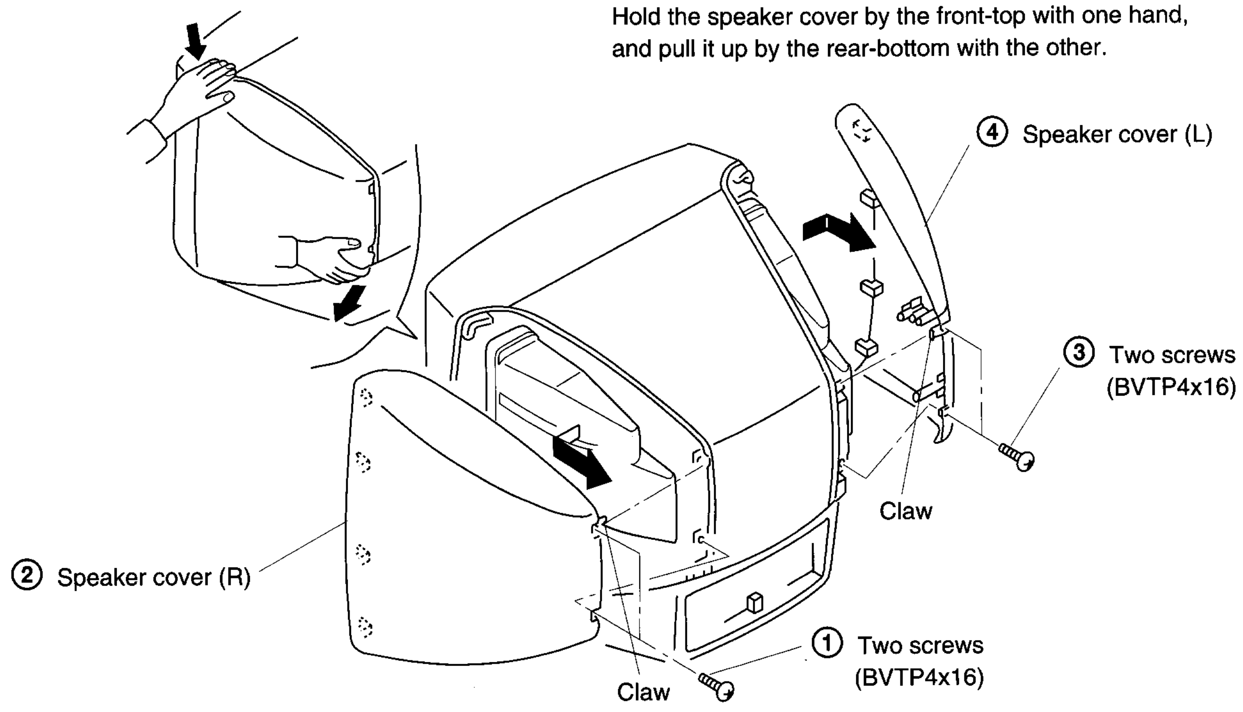
If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.



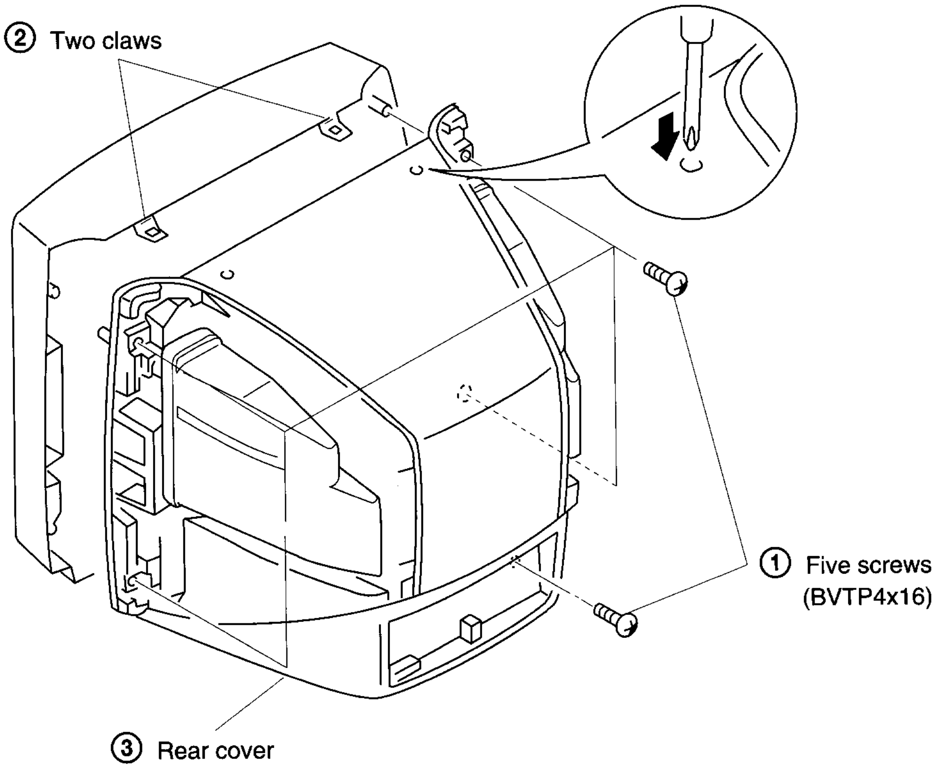
SECTION 2
DISASSEMBLY

2-1. SPEAKER COVER REMOVAL

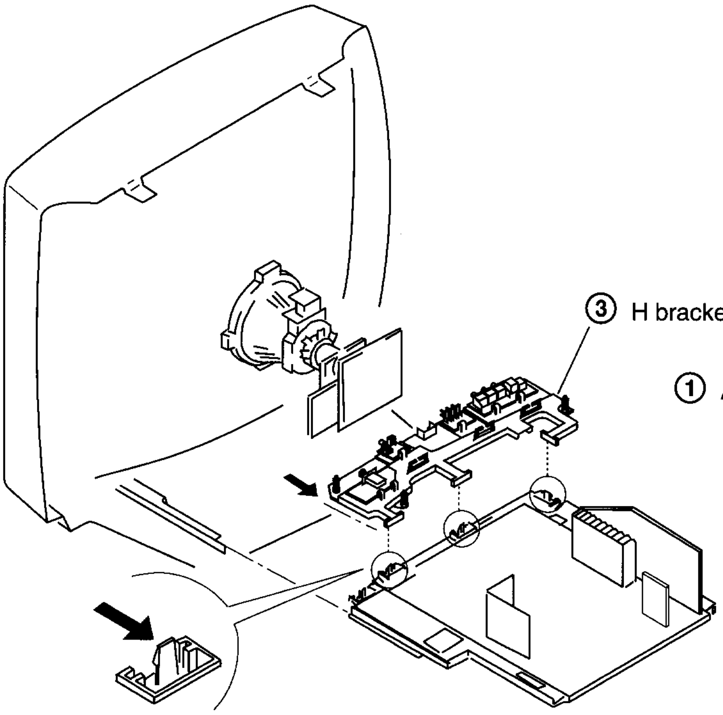
Hold the speaker cover by the front-top with one hand, and pull it up by the rear-bottom with the other.


④ Speaker cover (L)
③ Two screws (BVTP4x16)
Claw
② Speaker cover (R)
① Two screws (BVTP4x16)
Claw

2-2. REAR COVER REMOVAL


② Two claws
① Five screws (BVTP4x16)
③ Rear cover

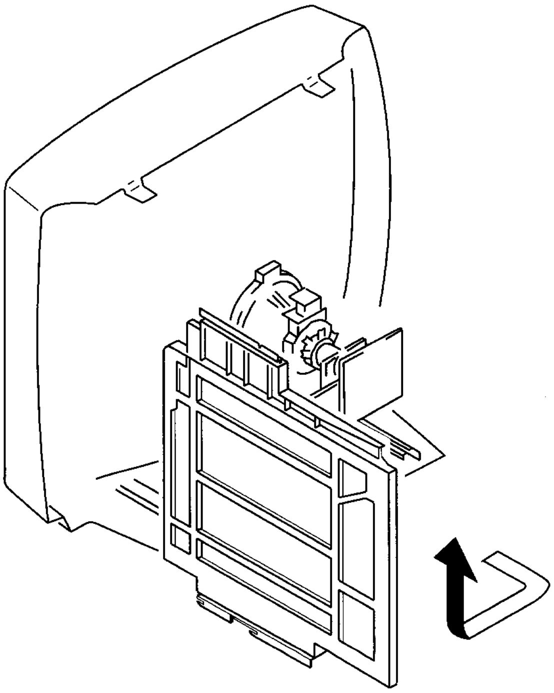
2-3. CHASSIS ASSY REMOVAL



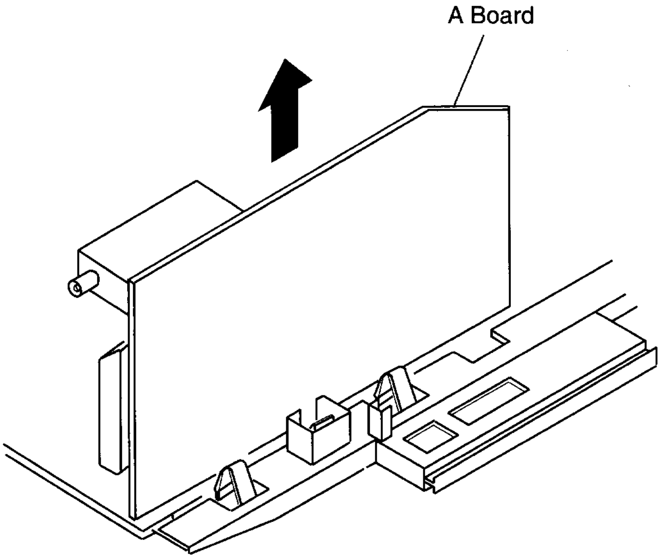
① After the assembly of the main chassis, lift and pull out the rear part of the main chassis towards the rear.

② Push the three claws of the main chassis in the direction of the arrow and remove the H bracket upwards.

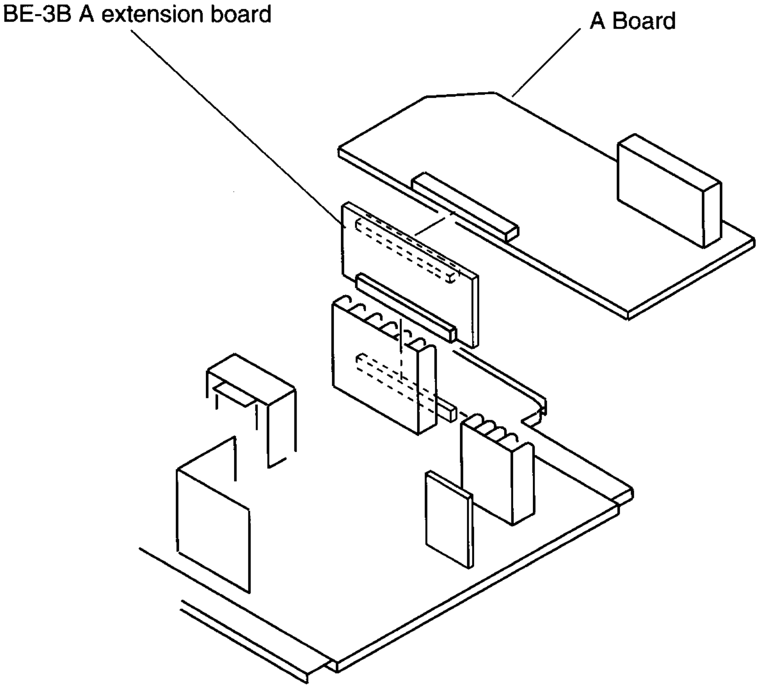
2-4. SERVICE POSITION



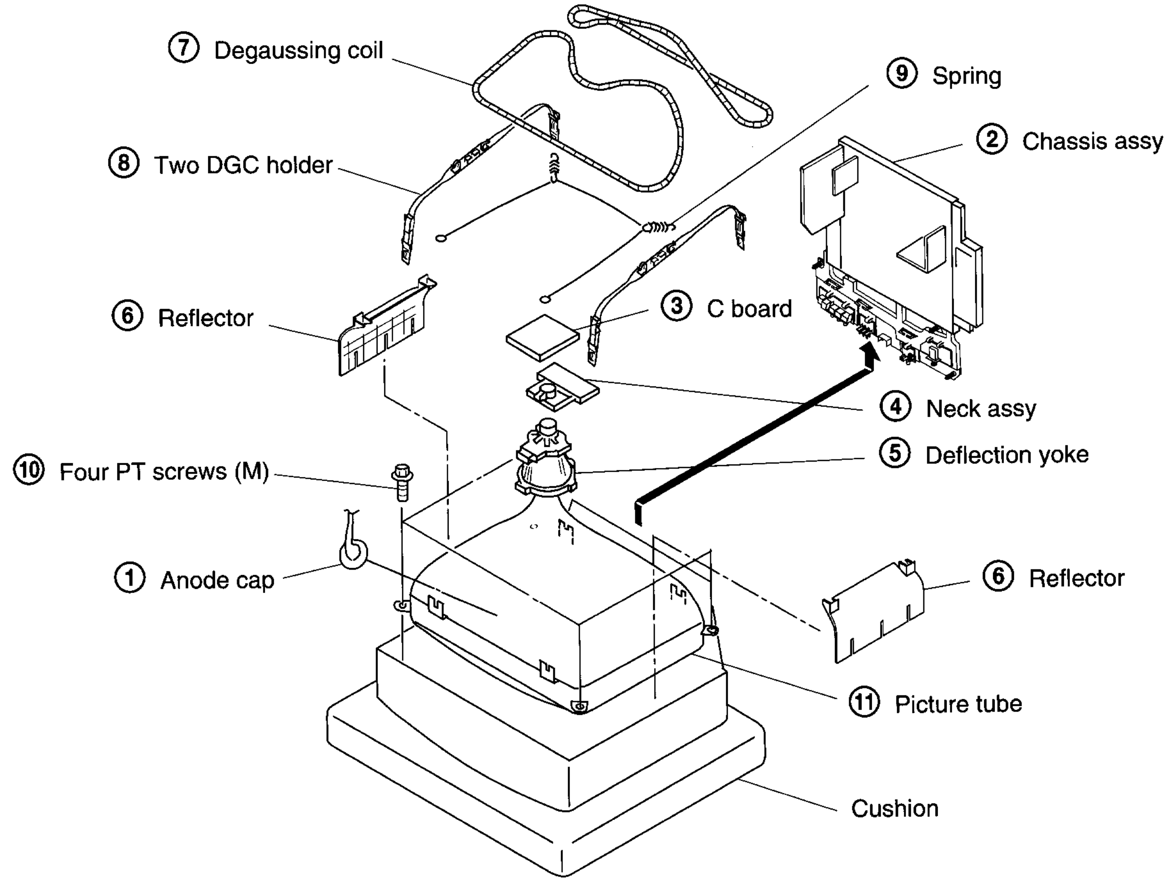
2-5. A BOARD REMOVAL



2-6. EXTENSION BOARD


BE-3B A extension board
A Board

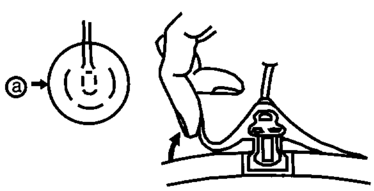
2-7. PICTURE TUBE REMOVAL

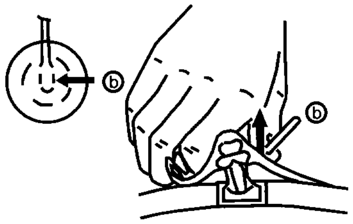

⑦ Degaussing coil
⑨ Spring
② Chassis assy
⑧ Two DGC holder
⑥ Reflector
③ C board
④ Neck assy
⑩ Four PT screws (M)
⑤ Deflection yoke
① Anode cap
⑥ Reflector
⑪ Picture tube
Cushion

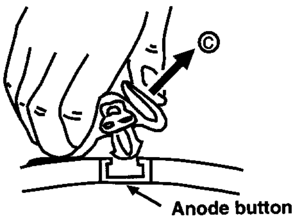
• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

*** REMOVING PROCEDURES.**






ⓒ
Anode button

① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ

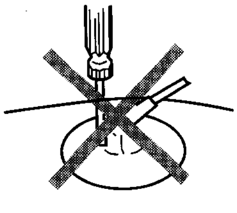
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

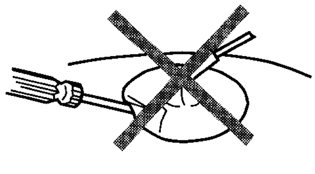
• HOW TO HANDLE AN ANODE-CAP

① Don't damage the surface of anode-cap with sharp shaped material !

② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.

③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.





SECTION 3
SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

◑ Contrast .... 80% (or remote control normal)
☼ Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.
1. Colour bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:
- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   CONTRAST } normal
   BRIGHTNESS }
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke forward and adjust with the purity control so that the red is at the centre and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

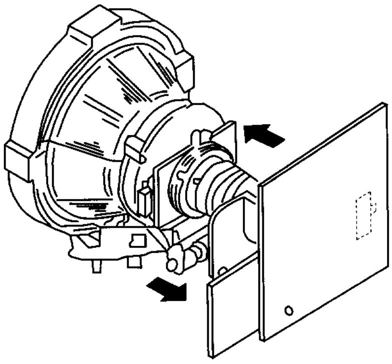


Fig. 3-1

Fig. 3-2

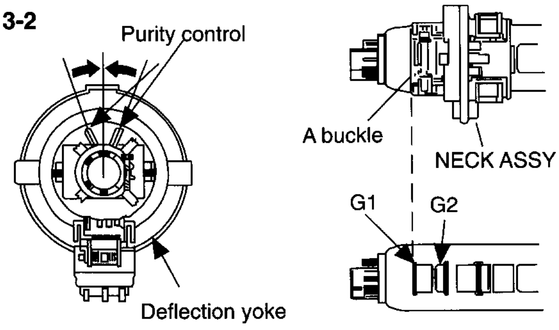
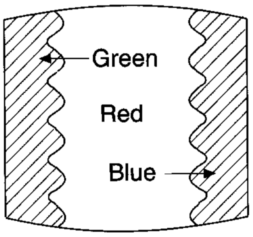

Purity control
A buckle
NECK ASSY
G1
G2
Deflection yoke

Fig. 3-3


Green
Red
Blue

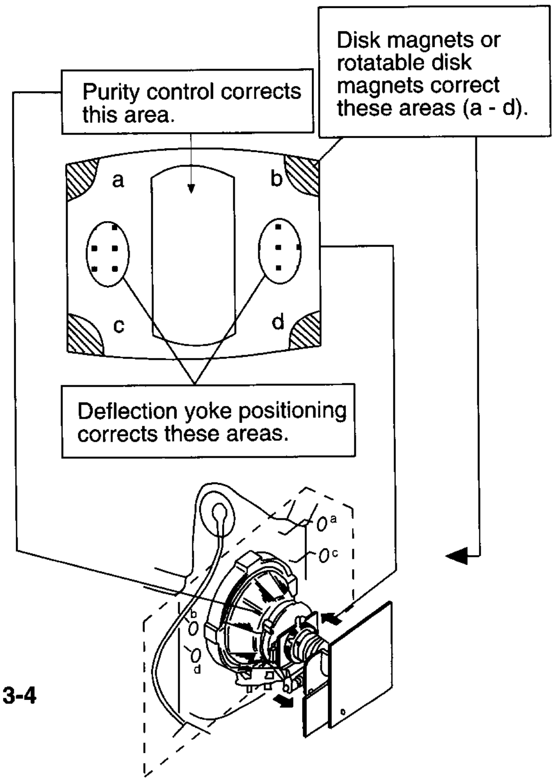

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas (a - d).
a
b
c
d
Deflection yoke positioning corrects these areas.

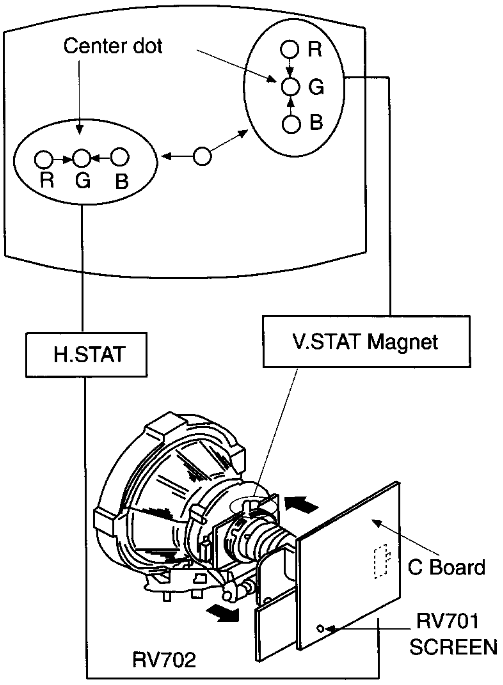
Fig. 3-4

3-2. CONVERGENCE

Preparation:

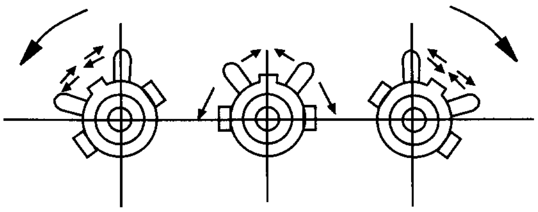
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

(1) Horizontal and vertical static convergence



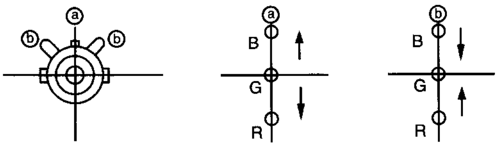
1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the centre of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the centre of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

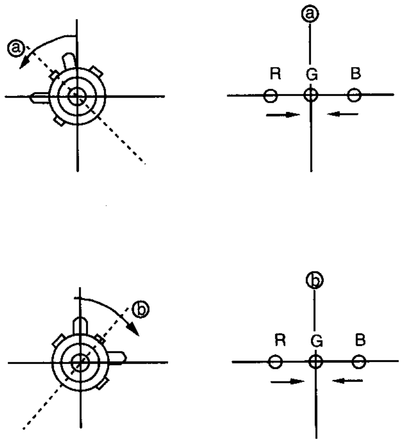


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.

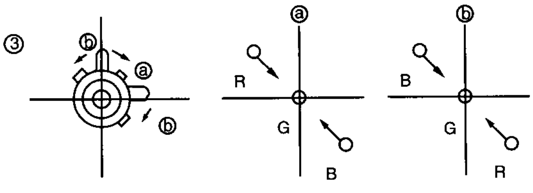
①



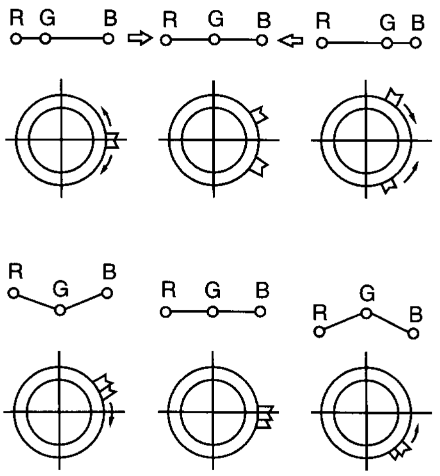
②

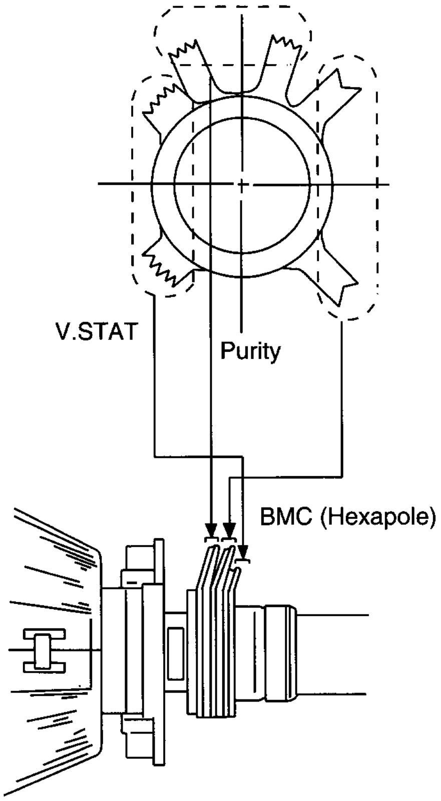


③



- Operation of BMC (Hexapole) Magnet


R G B
R G B
R G B
R G B
R G B
R G B


V.STAT
Purity
BMC (Hexapole)

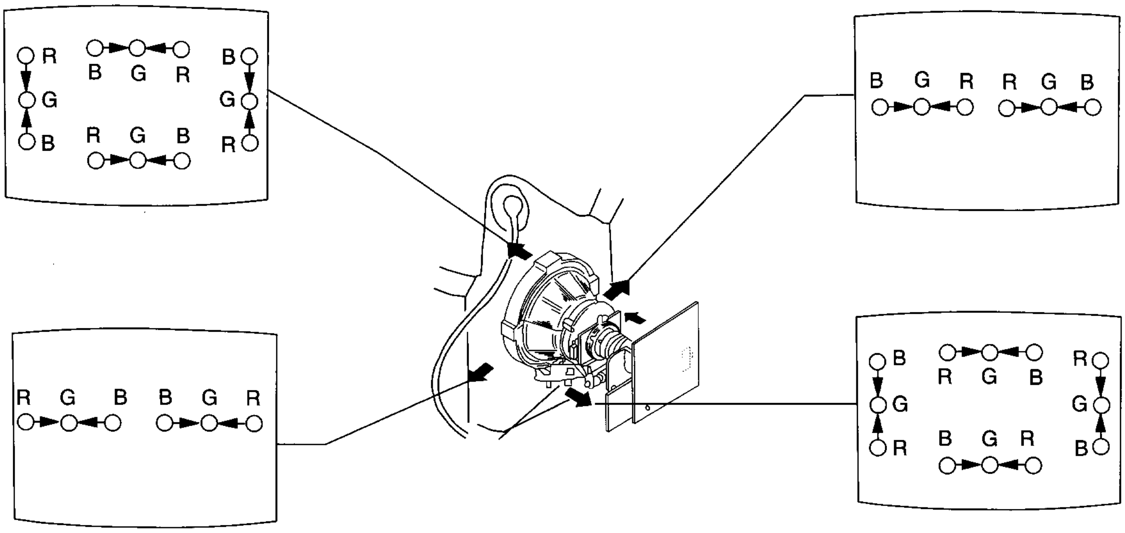
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the centre of the screen (by moving the dots in the horizontal direction).

(2) Dynamic convergence adjustment.

Preparation:

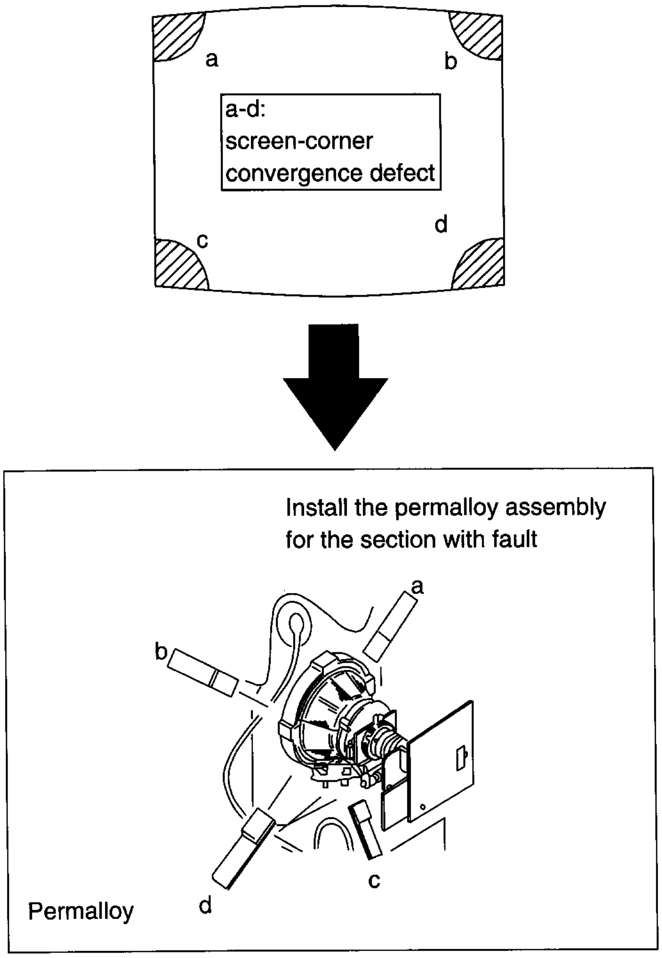
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Re-install the deflection yoke spacer.


R G B
B G R
R G B
B G R R G B
R G B B G R
B G R
B G R
R G B
B G R

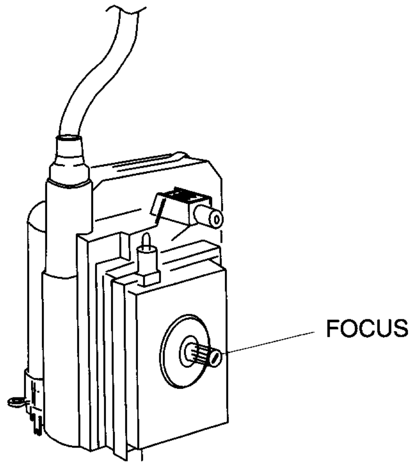
(3) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.



3-3. FOCUS

Adjust the focus to optimize the screen.



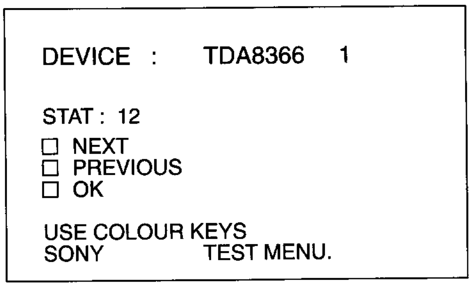
3-4. WHITE BALANCE

Screen G2 Setting

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive an all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" on how to enter service mode.)
3. Select TDA8366 1 on menu.



```
DEVICE :     TDA8366   1

STAT : 12
☐ NEXT
☐ PREVIOUS
☐ OK

USE COLOUR KEYS
SONY          TEST MENU.
```

4. Press the White button on the Remote Commander to enter into the device Menu.
5. Press the Red button 10 times "Next" "Next" "Next" to select HWB RED, adjust to 032.
6. Press the Red button to select HWB GREEN, adjust with the + and - menu buttons so that the white balance becomes optimum.
7. Press the Red button to select HWB BLUE, adjust with the + and - menu buttons so that the white balance becomes optimum.
8. Press the TV button twice on the Remote Commander to store the data and return to TV operation.

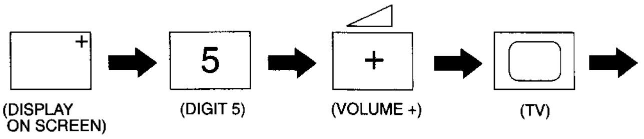
SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-833.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.



"TT " will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.

DEVICE NAME

STAT : xxxx
☐ NEXT
☐ PREVIOUS
☐ OK

USE COLOUR KEYS
SONY TEST MENU.

4. Press the Red (Next) and Green (Previous) buttons to select the device corresponding to the adjustment item from the table. Then press the White button (OK).

DEVICE NAME

00 ADJUSTMENT : xxx

☐ NEXT
☐ PREVIOUS

SELECT COL.BUTTON
CHANGE BY MENU +/-

5. Press the Red (Next) or Green (previous) buttons to select the adjustment item. Then press the ▽ and △ buttons to change the data to comply with each standard.

6. Turn off the power to quit the service mode when adjustments are completed.

Initial Conditions for setup of TDA8366, TDA6612 and SAA7283. (Stereo Models Only)

TDA8366 1	INIT VALUE	TDA8366 2	INIT VALUE
Hue	31	Interlace	00
H Shift	Adj	Sync Mode	00
H Size	Adj	Col Dec	00
Pin Amp	Adj	Vert Div	00
Corn Pin	Adj	Vid ID	00
Tilt	Adj	EHT Track	01
V.Linear	Adj	En V Grd	00
V.Size	Adj	Serv Blk	00
S.Corr	Adj	OVP Mode	00
V.Cent	Adj	Aspect R	00
HWB Red	Adj	Start Freq	00
HWB Green	Adj	Y/C Input	00
HWB Blue	Adj	PAL/NTSC	00
Peaking	8	Xtal PLL	00
Bright	32	Y Delay	07
Colour	32	RGB Blk	00
Picture	37	Noise Cor	00
AGC Set	00	Fast Blk	01
Srce Sel 1	00	AFC Wind	00
Srce Sel 2	00	IF Sensty	00
Time Con	03	Mod Std	00
Xtal Ind	03	Vid Mute	01
FF Freq	02		

TDA6612	INIT VALUE	TDA6612	INIT VALUE
MPX Per	00	Mute 2	01
Quasi St	00	C1/2LS	00
Bass Exp	00	C1/2KH	00
H Pulse	00	Mono	01
Matrix St	00	Scart	00
Bypass	00	Scart D	00
Vol L Sp	07	AM	00
Vol R Sp	07	SAA7283	INIT VALUE
Vol HP	00	Mon M1/M2	01
Pll Sync	00	DM Select	01
Mute 3	01	SSWIT 123	07
Treble	08	Port 2	00
Bass	09	Mute Def	00
X Talk Adj	Adj	AMDIS	00
Mute 1	00	E Max	80
		E Min	01

4-2. TEST MODE 2 :

Is available by pressing Test button twice, OSD 'TT ' appears. The functions described below are available by pressing the two numbers. To release the Test Mode 2, press 0 twice, or switch the TV into Stand-by Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing Condition (Volume min., Picture max., Brightness max.
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	"Menu" Flag request
10	Tenth entry is deleted
11	dummy
12	dummy
13	dummy
14	Forced AV 16:9 detection on/off
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM.
17	Preset Label for AV Sources
18	RGB Priority on/off
19	Clear all preset labels
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24	Set destination = U RGB Priority = Off
25	Set destination = D RGB Priority = Off
26	Set destination = B RGB Priority = On
27	Set destination = K RGB Priority = Off
28	Set destination = L RGB Priority = Off
29	Set destination = E RGB Priority = Off

30	Tenth entry is deleted
31	Set Destination = A RGB Priority = On
32	dummy
33	Auto AGC
34	N/S Pin Adjust
35	Manual AGC Adjust
36	dummy
37	dummy
38	To Activate Rotation Coil Adjustment
39	'Check Rotation Coil Adjustment
40	Tenth entry is deleted
41	Re-initialise NVM
42	Production use only
43	Initialise Geom Settings
44	Initialise all favorite pages = 100
45	Channel locks = off
46	IR Channel Pressetting Mode The channel pressetting can be done by a Special IR Transmitter (Ver 2 and above software only)
47	dummy
48	Set NVM testbyte to 44h
49	Erase the NVM Testbyte (this byte detects already stored NVM's) After selecting this function, switch TV Off and On -> the NVM will be preset by µ-Controller.

In Test Mode the Menu display is switchable by the Speaker-Off button.

Note : For Test Modes 41 - 49 it is necessary to ensure that the TV is set to Prog 59.

SUB BRIGHTNESS ADJUSTMENT

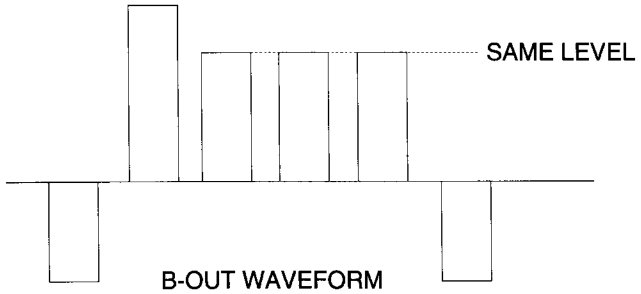
1. Input a Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of grey scale and CUT-OFF 20-IRE are only slightly visible on screen.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a Black Background.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Connect oscilloscope to pin ① of CN703 (R OUT) and adjust HWB Red data of TDA8366 1 to obtain 2.3Vp-p.

SUB COLOR ADJUSTMENT

1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin ③ of CN703 (B OUT) on the C board.
3. Enter into service mode and press 22.
4. Adjust data so that the right sides of the waveform are set to the same level.



STEREO SEPARATION ADJUSTMENT

1. Input a 1KHz stereo signal to the L-ch and a 400Hz stereo signal to the R-ch.
2. Enter into service mode and select the "Test Menu" to be TDA6612.
3. Select the Stereo Xtalk Adjustment Menu, by using the Red (Next) and Green (Previous) buttons.
4. Monitor the Scart 1 L-channel output and adjust the data so that the R-channel sound is not detected in the L-channel.

I.F. COIL ADJUSTMENT

1. Apply a 38.9MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

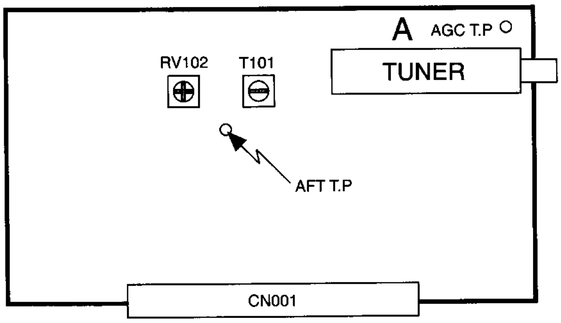
L, BAND 1 ADJUSTMENT (RV102) - L, STANDARD FOR FRENCH MODEL

1. Apply a 33.95MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for positive modulation and system L band 1.
3. Measure the voltage at the AFT test point and adjust (RV102) to obtain 2.4V +/- 0.2V.

Note : Only adjust RV102 after T101 has been correctly adjusted.

AGC ADJUSTMENT

1. Receive an off- air signal.
2. Enter the service mode, ("Test" "Test") and 35.
3. Adjust the data so that there is no snow or cross - modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



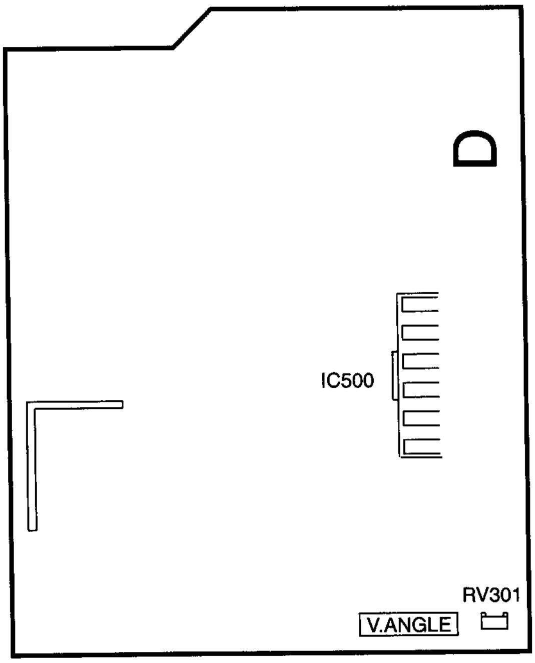
- A Board component side -

DEFLECTION SYSTEM ADJUSTMENT

1. Enter into service mode.
2. Select and adjust each item in order to obtain the optimum image.

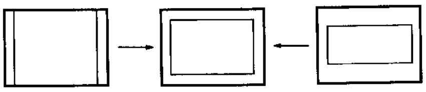
Item No	Adjustment item.	Data Amount
03	H SHIFT	ADJ.
04	H SIZE	ADJ.
05	PIN AMP	ADJ.
06	CORR PIN	ADJ.
07	TILT	ADJ.
08	V LINEAR	ADJ.
09	V SIZE	ADJ.
0A	S CORR	ADJ.
0B	V CENTER	ADJ.

Note : V ANGLE is adjusted by a Variable Resistor on the 'D' Board (RV301)

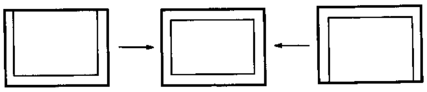


- D Board Component Side -

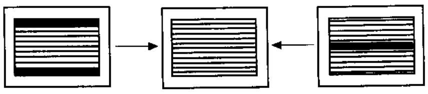
V SIZE



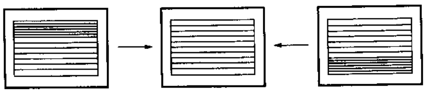
V CENTER



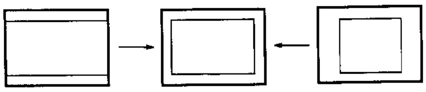
S CORR



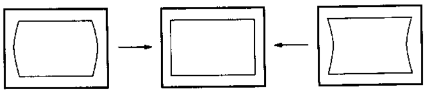
V LIN



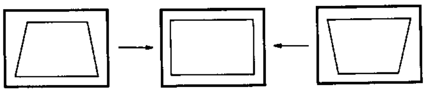
H SIZE



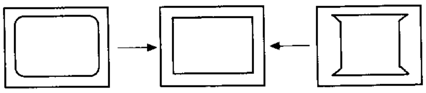
PIN AMP



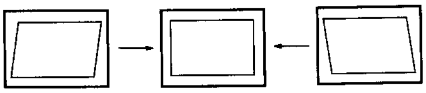
TILT



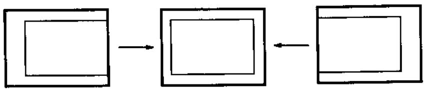
CORR PIN



V ANGLE



H SHIFT



4-3. BE-3B SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3B chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failiure to respond to IIC. In the event of one of these situations arrising the software will first try to release the bus if busy (Failiure to do so will report with continous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1., on fatal errors are reported with this method.

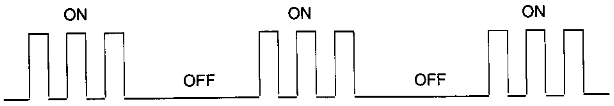
If a fatal error is found the set will simply stay in whichever state it was when the error occured, but if a non fatal error occurs the set will try to continue operation.

Table 1

Device	LED Error Count	Fatal Error
NVM	2 .. 9	√
Teletext	10	
Jungle	11	√
Video_sw	12	
Tuner	13	√
Nicam	14	
Audio_cont	15	√

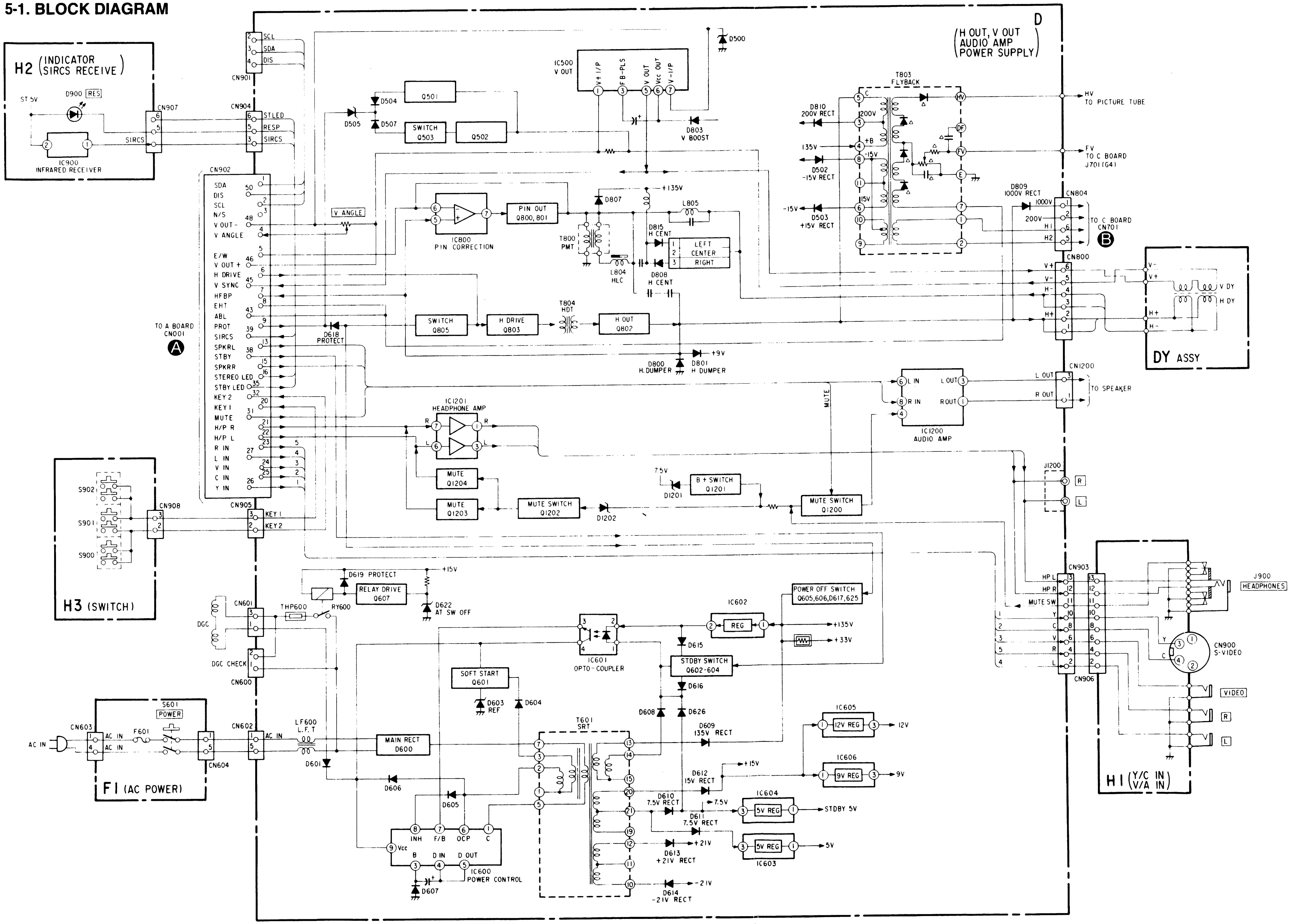
Flash Timing Example : e.g. error number 3.

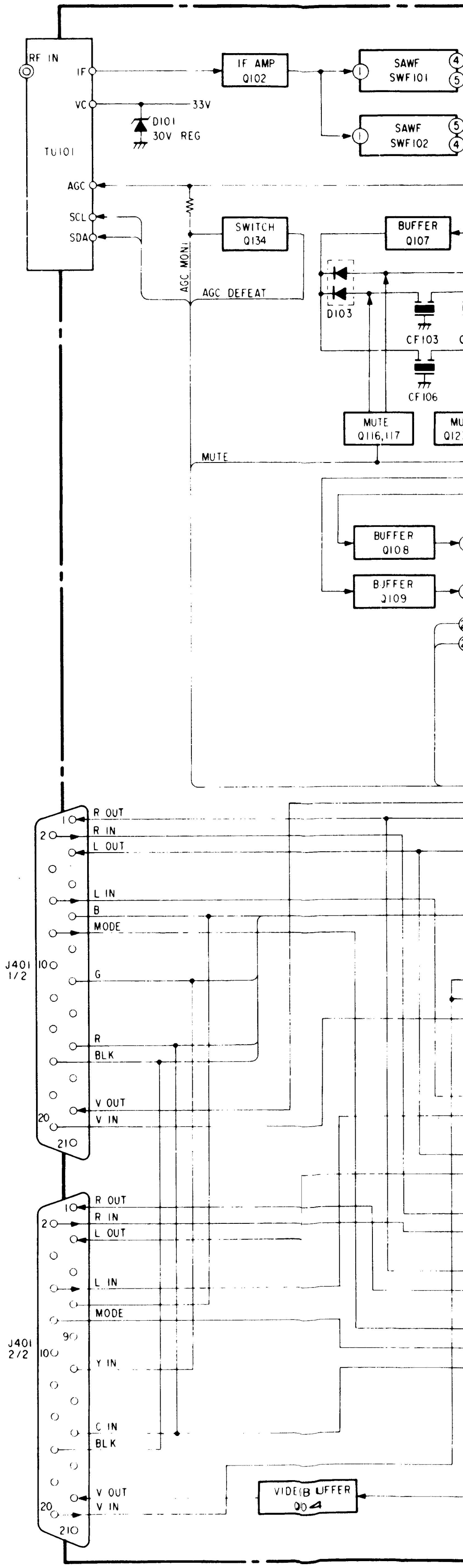
Stby LED

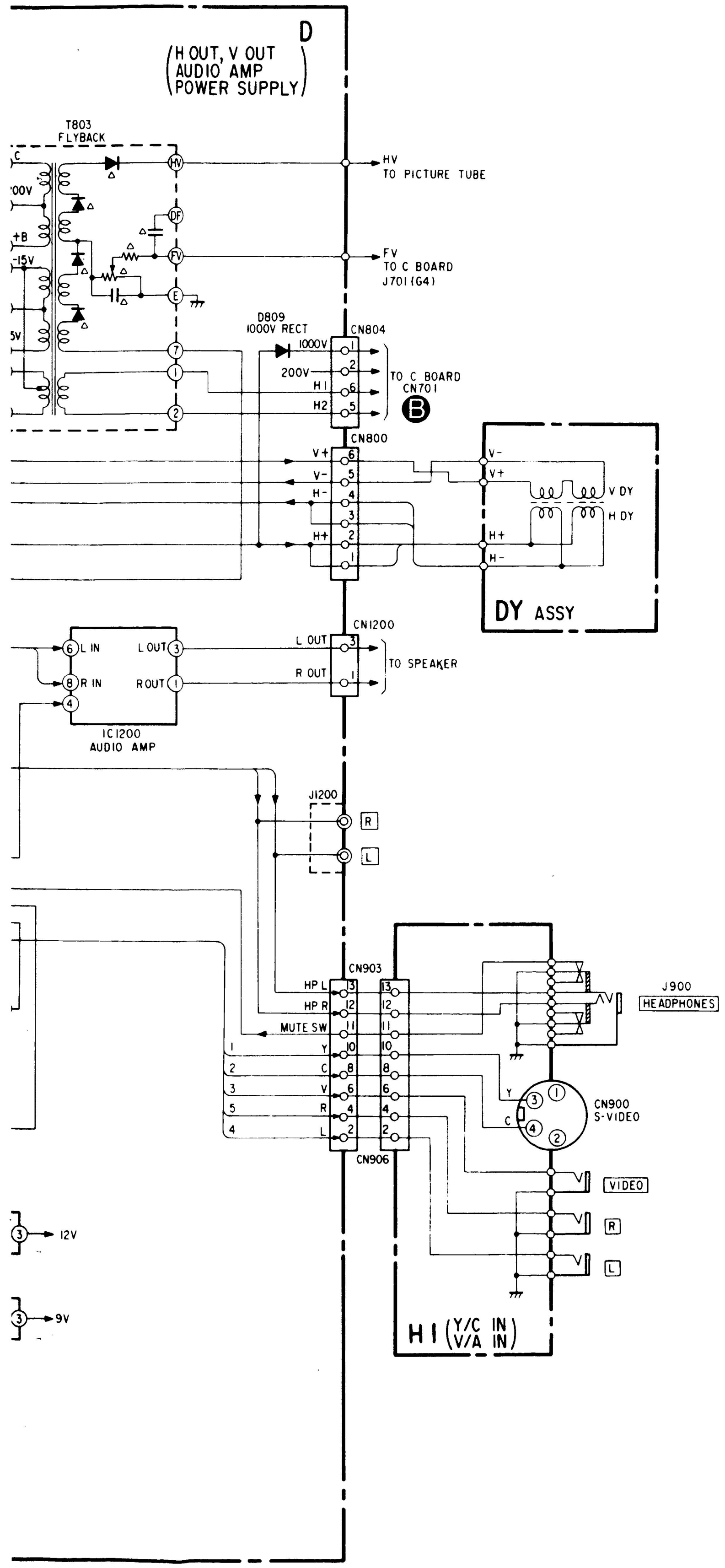


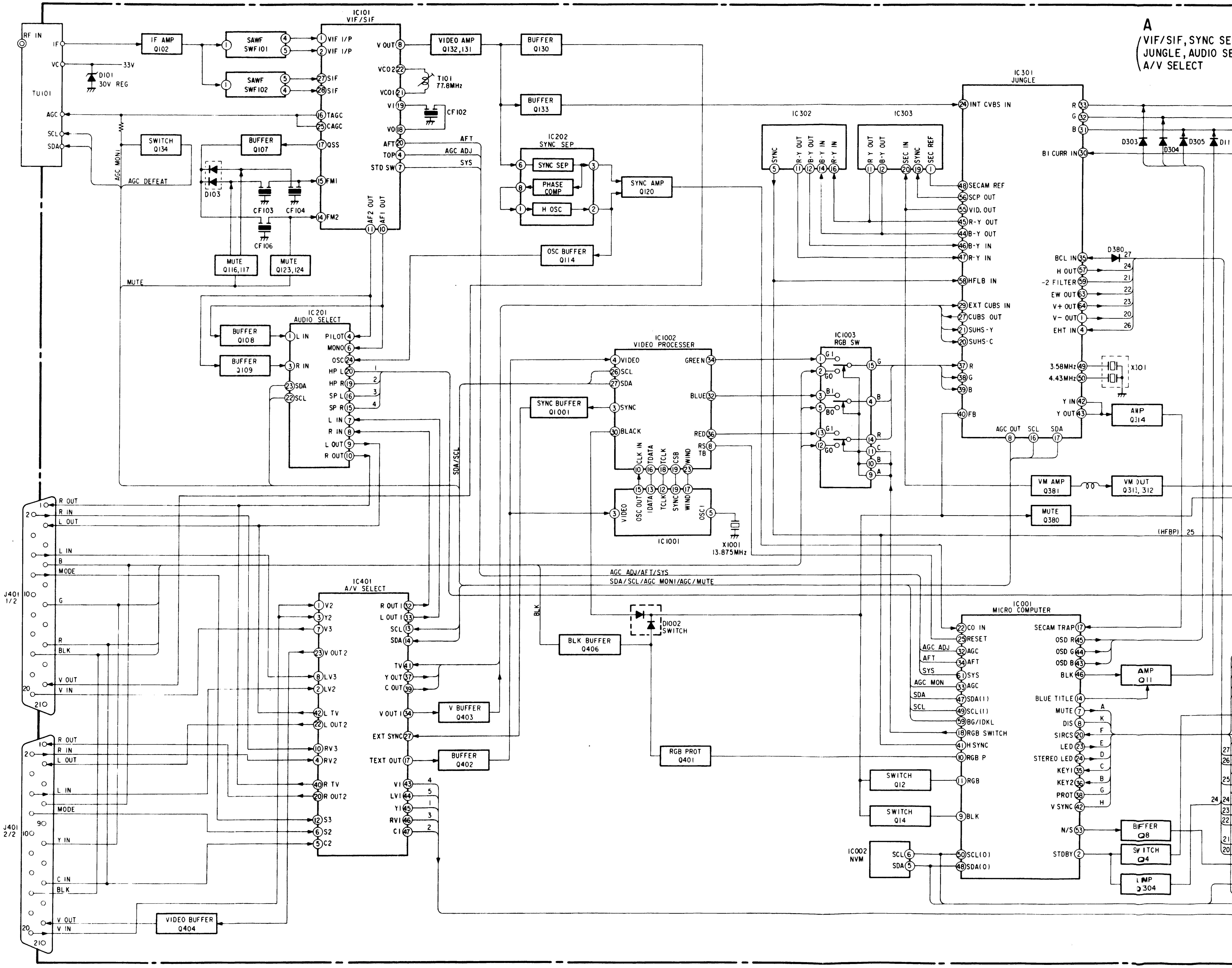
SECTION 5
DIAGRAMS

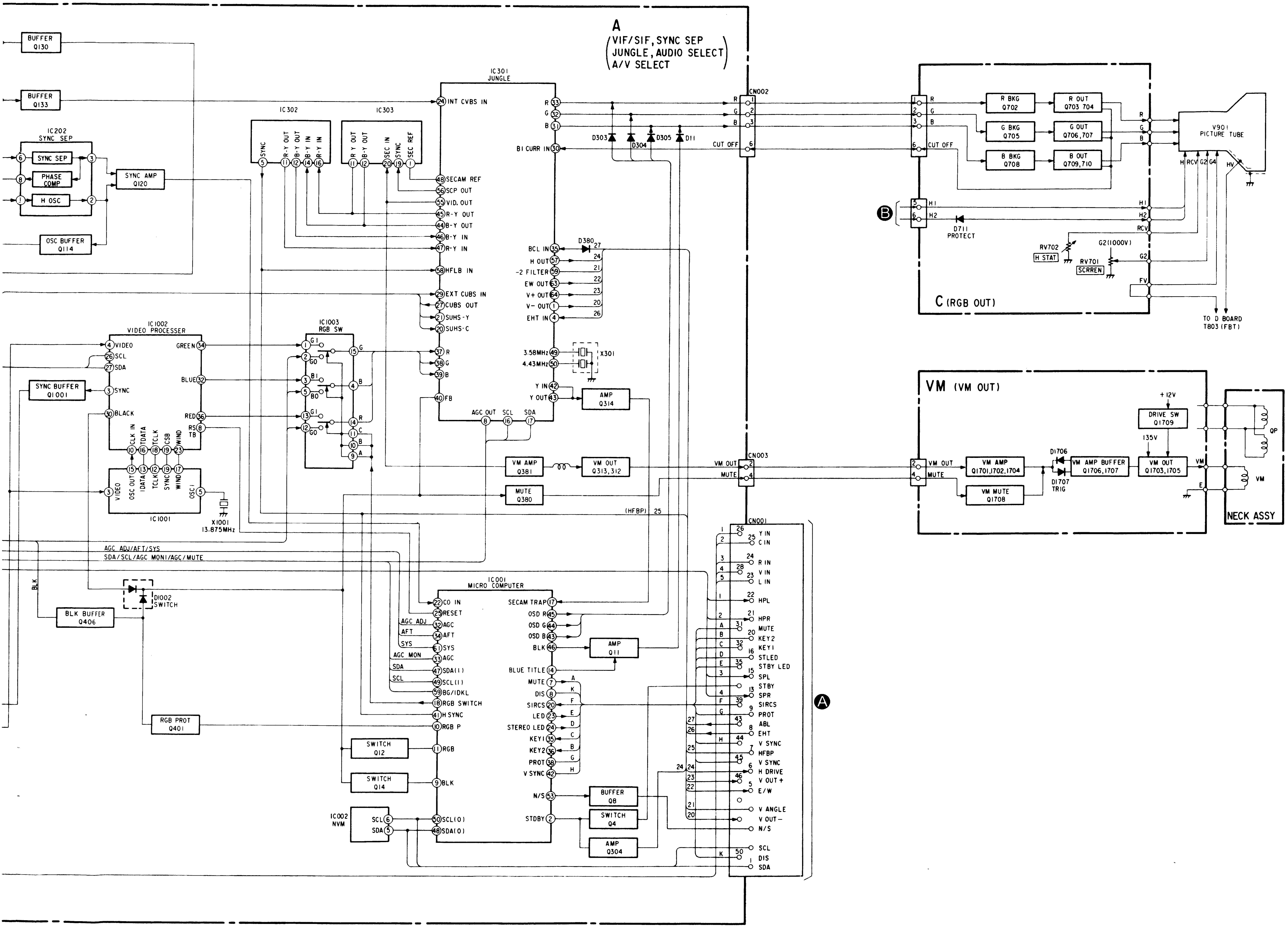
5-1. BLOCK DIAGRAM


H2 (INDICATOR SIRCS RECEIVE)
ST 5V
D900 RES
IC900 INFRARED RECEIVER
SIRCS
CN907
CN901
SCL
SDA
DIS
CN904
STLED
RESP
SIRCS
CN902
SDA
DIS
SCL
N/S
V OUT-
V ANGLE
E/W
V OUT+
H DRIVE
V SYNC
HFBP
EHT
ABL
PROT
SIRCS
SPKRL
STBY
SPKRR
STEREO LED
STBY LED
KEY 2
KEY 1
MUTE
H/P R
H/P L
R IN
L IN
V IN
C IN
Y IN
TO A BOARD CN001
A
D
(H OUT, V OUT AUDIO AMP POWER SUPPLY)
D500
IC500 V OUT
V+ I/P
FB-PLS
V OUT
Vcc OUT
V-I/P
D803 V BOOST
D504
Q501
D505
D507
SWITCH Q503
Q502
V ANGLE
IC800 PIN CORRECTION
PIN OUT Q800, 801
D807
+135V
L805
T800 PMT
D815 H CENT
LEFT
CENTER
RIGHT
L804 HLC
D808 H CENT
SWITCH Q805
H DRIVE Q803
T804 HDT
H OUT Q802
D618 PROTECT
D800 H.DUMPER
D801 H DUMPER
+9V
T803 FLYBACK
D810 200V RECT
135V
D502 -15V RECT
-15V
D503 +15V RECT
200V
+B
-15V
115V
HV TO PICTURE TUBE
FV TO C BOARD J701 (G4)
D809 1000V RECT
CN804
1000V
200V
H1
H2
TO C BOARD CN701
B
CN800
V+
V-
H-
H+
DY ASSY
V DY
H DY
IC1201 HEADPHONE AMP
MUTE Q1204
MUTE Q1203
MUTE SWITCH Q1202
D1202
7.5V
D1201
B+ SWITCH Q1201
MUTE SWITCH Q1200
MUTE
IC1200 AUDIO AMP
L IN
R IN
L OUT
R OUT
CN1200
TO SPEAKER
J1200
R
L
H3 (SWITCH)
S902
S901
S900
CN908
CN905
KEY 1
KEY 2
CN903
HP L
HP R
MUTE SW
Y
C
V
R
L
CN906
J900 HEADPHONES
CN900 S-VIDEO
VIDEO
H1 (Y/C IN) (V/A IN)
DGC
CN601
THP600
RY600
DGC CHECK
CN600
D619 PROTECT
+15V
RELAY DRIVE Q607
D622 AT SW OFF
POWER OFF SWITCH Q605,606,D617,625
IC602
REG
+135V
+33V
IC601 OPTO-COUPLER
D615
STDBY SWITCH Q602-604
D616
D608
D626
SOFT START Q601
D603 REF
D604
F1 (AC POWER)
S601 POWER
CN603
AC IN
F601
CN604
CN602
LF600 L.F.T
D601
MAIN RECT D600
D606
D605
T601 SRT
D609 135V RECT
IC605 12V REG
12V
IC606 9V REG
9V
D612 15V RECT
+15V
D610 7.5V RECT
+7.5V
IC604 5V REG
STDBY 5V
D611 7.5V RECT
D613 +21V RECT
+21V
IC603 5V REG
5V
D614 -21V RECT
-21V
IC600 POWER CONTROL
INH
F/B
OCP
C
Vcc
B
D IN
D OUT
D607

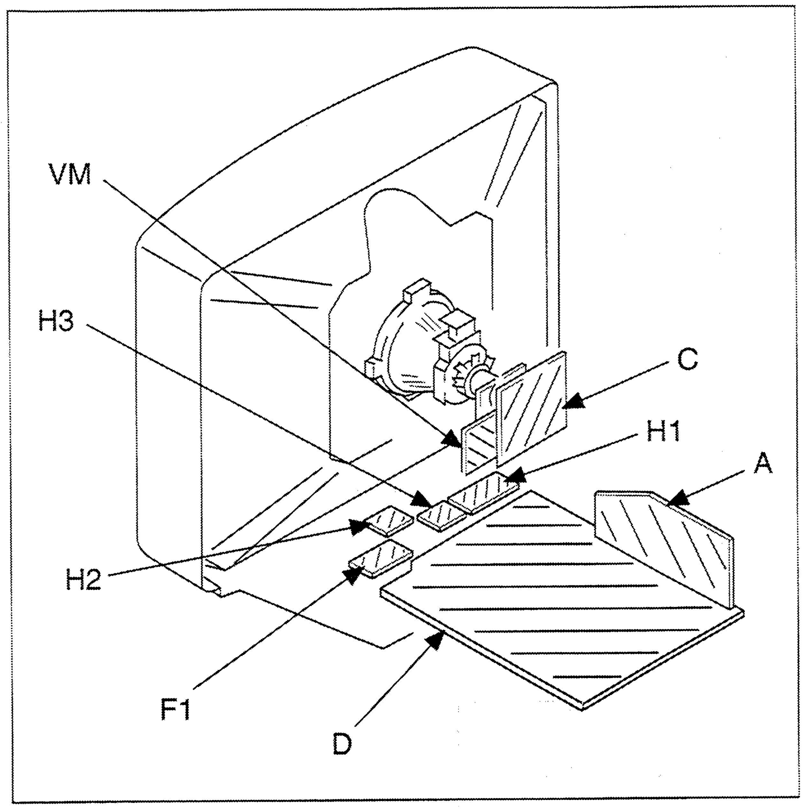

RF IN
IF
VC
33V
D101 30V REG
TU101
AGC
SCL
SDA
IF AMP Q102
SAWF SWF101
SAWF SWF102
SWITCH Q134
AGC MONI
AGC DEFEAT
BUFFER Q107
D103
CF103
CF106
MUTE Q116,117
MUTE
BUFFER Q108
BUFFER Q109
J401 1/2
R OUT
R IN
L OUT
L IN
B
MODE
G
R
BLK
V OUT
V IN
J401 2/2
Y IN
C IN
VIDEO BUFFER Q04


D
(H OUT, V OUT
AUDIO AMP
POWER SUPPLY)
T803
FLYBACK
HV
TO PICTURE TUBE
FV
TO C BOARD
J701 (G4)
D809
1000V RECT
1000V
200V
H1
H2
CN804
TO C BOARD
CN701
B
CN800
V+
V-
H-
H+
V DY
H DY
DY ASSY
L IN
R IN
L OUT
R OUT
IC1200
AUDIO AMP
CN1200
TO SPEAKER
J1200
R
L
CN903
HP L
HP R
MUTE SW
Y
C
V
R
L
CN906
J900
HEADPHONES
CN900
S-VIDEO
VIDEO
H1 (Y/C IN
V/A IN)
12V
9V


A
(VIF/SIF, SYNC SE
JUNGLE, AUDIO SE
A/V SELECT
RF IN
IF
VC
AGC
SCL
SDA
TU101
33V
D101
30V REG
IF AMP
Q102
SAWF
SWF101
SAWF
SWF102
IC101
VIF/SIF
VIF I/P
SIF
TAGC
CAGC
QSS
FM1
FM2
AF2 OUT
AF1 OUT
V OUT
VCO2
VCO1
VI
VO
AFT
TOP
STD SW
T101
77.8MHz
CF102
AGC ADJ
SYS
SWITCH
Q134
BUFFER
Q107
D103
CF103
CF104
CF106
MUTE
Q116, 117
MUTE
Q123, 124
AGC MONI
AGC DEFEAT
MUTE
VIDEO AMP
Q132, 131
BUFFER
Q130
BUFFER
Q133
IC202
SYNC SEP
SYNC SEP
PHASE COMP
H OSC
SYNC AMP
Q120
OSC BUFFER
Q114
IC201
AUDIO SELECT
BUFFER
Q108
BUFFER
Q109
L IN
R IN
PILOT
MONO
OSC
HP L
HP R
SP L
SP R
L OUT
R OUT
SDA
SCL
SDA/SCL
IC302
SYNC
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN
IC303
SEC IN
SEC REF
IC301
JUNGLE
INT CVBS IN
SECAM REF
SCP OUT
VID. OUT
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN
HFLB IN
EXT CUBS IN
CUBS OUT
SUHS-Y
SUHS-C
R
G
B
FB
B1 CURR IN
BCL IN
H OUT
-2 FILTER
EW OUT
V+ OUT
V- OUT
EHT IN
3.58MHz
4.43MHz
X301
Y IN
Y OUT
AGC OUT
AMP
Q314
D303
D304
D305
D380
IC1002
VIDEO PROCESSER
VIDEO
SCL
SDA
SYNC
BLACK
GREEN
BLUE
RED
RS
TB
CLK IN
TDATA
TCLK
CSB
WIND
SYNC BUFFER
Q1001
IC1001
OSC OUT
IDATA
OSC1
X1001
13.875MHz
IC1003
RGB SW
G1
G0
B1
B0
VM AMP
Q381
VM OUT
Q313, 312
MUTE
Q380
(HFBP) 25
AGC ADJ/AFT/SYS
SDA/SCL/AGC MONI/AGC/MUTE
BLK
D1002
SWITCH
BLK BUFFER
Q406
RGB PROT
Q401
J401
1/2
R OUT
R IN
L OUT
L IN
B
MODE
G
R
BLK
V OUT
V IN
IC401
A/V SELECT
V2
Y2
V3
V OUT 2
LV3
LV2
L TV
L OUT 2
RV3
RV2
R TV
R OUT 2
S3
S2
C2
R OUT 1
L OUT 1
SCL
SDA
TV
Y OUT
C OUT
V OUT 1
EXT SYNC
TEXT OUT
V1
LV1
Y1
RV1
C1
V BUFFER
Q403
BUFFER
Q402
J401
2/2
Y IN
C IN
VIDEO BUFFER
Q404
IC001
MICRO COMPUTER
CO IN
RESET
AGC
AFT
SYS
SDA(1)
SCL(1)
BG/IDKL
RGB SWITCH
H SYNC
RGB P
RGB
BLK
SCL(0)
SDA(0)
AGC MON
SECAM TRAP
OSD R
OSD G
OSD B
BLK
BLUE TITLE
MUTE
DIS
SIRCS
LED
STEREO LED
KEY1
KEY2
PROT
V SYNC
N/S
STDBY
AMP
Q11
SWITCH
Q12
SWITCH
Q14
IC002
NVM
BUFFER
Q8
SWITCH
Q4
AMP
Q304


A
(VIF/SIF, SYNC SEP
JUNGLE, AUDIO SELECT
A/V SELECT)
BUFFER Q130
BUFFER Q133
IC202 SYNC SEP
SYNC SEP
PHASE COMP
H OSC
SYNC AMP Q120
OSC BUFFER Q114
IC301 JUNGLE
INT CVBS IN
IC302
IC303
SYNC
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN
SEC IN
SEC REF
SECAM REF
SCP OUT
VID. OUT
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN
HFLB IN
EXT CUBS IN
CUBS OUT
SUHS-Y
SUHS-C
R
G
B
FB
AGC OUT
SCL
SDA
BI CURR IN
D303
D304
D305
D11
CUT OFF
CN002
D380
BCL IN
H OUT
-2 FILTER
EW OUT
V+ OUT
V- OUT
EHT IN
3.58MHz
4.43MHz
X301
Y IN
Y OUT
AMP Q314
IC1002 VIDEO PROCESSER
VIDEO
SCL
SDA
SYNC
BLACK
GREEN
BLUE
RED
RS TB
CLK IN
IDATA
TCLK
CSB
WIND
SYNC BUFFER Q1001
OSC OUT
OSC I
IC1001
X1001 13.875MHz
IC1003 RGB SW
VM AMP Q381
VM OUT Q313,312
MUTE Q380
VM OUT
MUTE
CN003
(HFBP) 25
CN001
AGC ADJ/AFT/SYS
SDA/SCL/AGC MONI/AGC/MUTE
BLK
D1002 SWITCH
BLK BUFFER Q406
RGB PROT Q401
IC001 MICRO COMPUTER
CO IN
RESET
AGC ADJ
AGC
AFT
SYS
AGC MON
SDA(1)
SCL(1)
BG/IDKL
RGB SWITCH
H SYNC
RGB P
RGB
BLK
SCL(0)
SDA(0)
SECAM TRAP
OSD R
OSD G
OSD B
BLK
AMP Q11
BLUE TITLE
MUTE
DIS
SIRCS
LED
STEREO LED
KEY1
KEY2
PROT
V SYNC
N/S
STDBY
BUFFER Q8
SWITCH Q4
AMP Q304
SWITCH Q12
SWITCH Q14
IC002 NVM
Y IN
C IN
R IN
V IN
L IN
HPL
HPR
MUTE
KEY2
KEY1
STLED
STBY LED
SPL
STBY
SPR
SIRCS
PROT
ABL
EHT
V SYNC
HFBP
V SYNC
H DRIVE
V OUT+
E/W
V ANGLE
V OUT-
N/S
SCL
DIS
SDA
A
B
R BKG Q702
R OUT Q703 704
G BKG Q705
G OUT Q706,707
B BKG Q708
B OUT Q709,710
V901 PICTURE TUBE
H RCV G2 G4
HV
H1
H2
D711 PROTECT
RCV
RV702 H STAT
G2(1000V)
RV701 SCRREN
FV
C (RGB OUT)
TO D BOARD T803 (FBT)
VM (VM OUT)
+12V
DRIVE SW Q1709
135V
VM AMP Q1701,1702,1704
D1706
D1707 TRIG
VM AMP BUFFER Q1706,1707
VM OUT Q1703,1705
VM MUTE Q1708
QP
VM
E
NECK ASSY

5-2. CIRCUIT BOARDS LOCATION


VM
H3
C
H1
A
H2
F1
D

Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

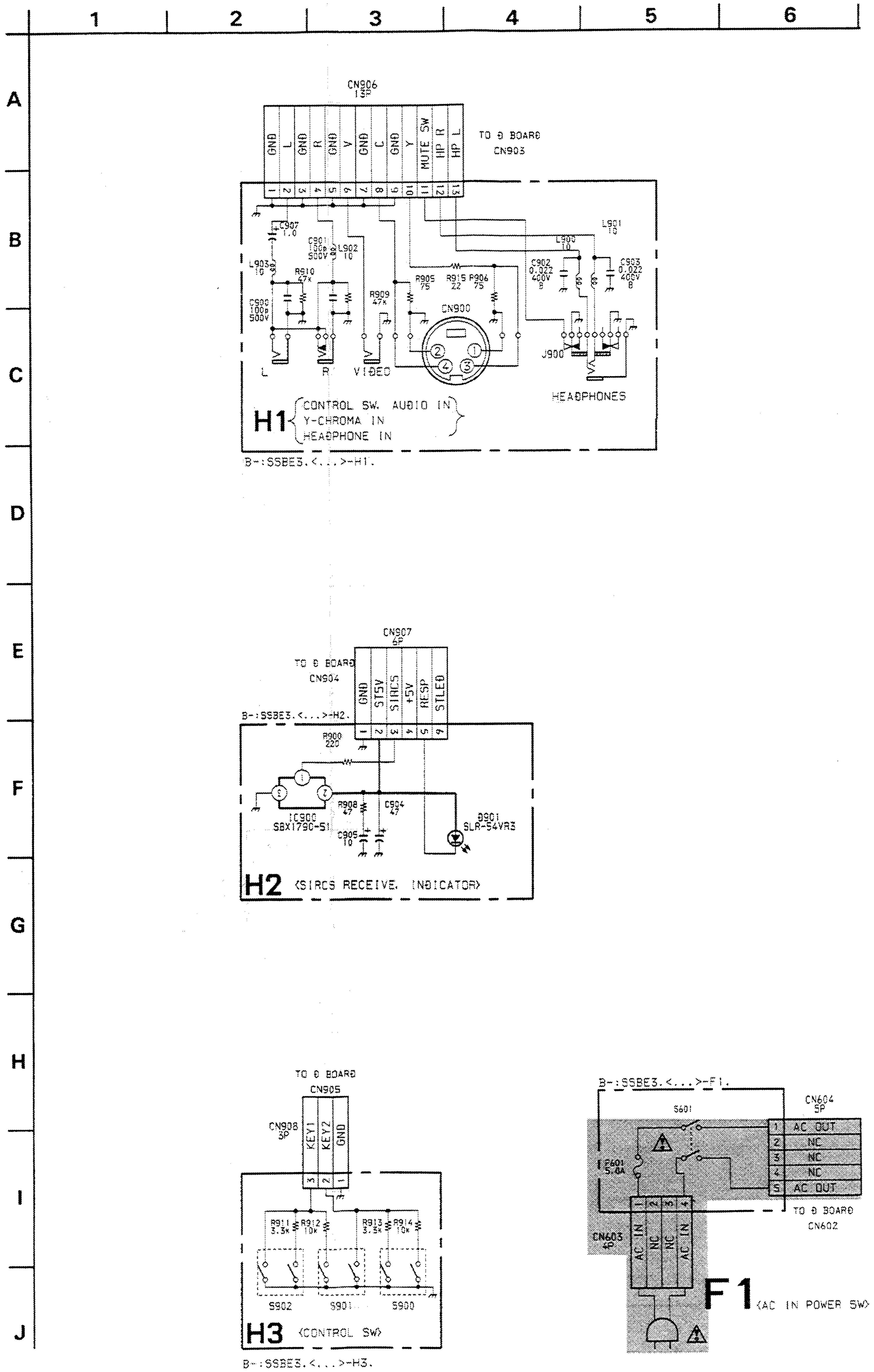
5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

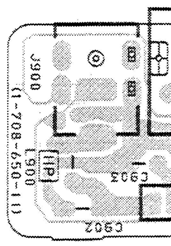
  Pitch : 5mm
  Rating electrical power : ¼W

- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000KΩ
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- △ : internal component.
- ☐ : panel designation or adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ▬▬ : B + bus.
- ▬ ▬ : B − bus.
- ⇨ : signal path.(RF)
- ⊥ : earth - ground
- ⊥ : earth - chassis

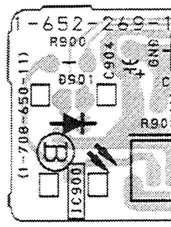

1
2
3
4
5
6
A
B
C
D
E
F
G
H
I
J
CN906
13P
GND
L
GND
R
GND
V
GND
C
GND
Y
MUTE SW
HP R
HP L
TO B BOARD
CN903
C907
1.0
C901
100p
500V
L902
10
L903
10
R910
47k
C900
100p
500V
R909
47k
R905
75
R915
22
R906
75
CN900
L900
10
L901
10
C902
0.022
400V
B
C903
0.022
400V
B
J900
L
R
VIDEO
HEADPHONES
H1
CONTROL SW, AUDIO IN
Y-CHROMA IN
HEADPHONE IN
B-:SSBE3.<...>-H1.
CN907
6P
TO B BOARD
CN904
GND
ST5V
SIRCS
+5V
RESP
STLED
B-:SSBE3.<...>-H2.
R900
220
IC900
SBX1790-51
R908
47
C904
47
C905
10
D901
SLR-54VR3
H2
<SIRCS RECEIVE, INDICATOR>
TO B BOARD
CN905
CN908
3P
KEY1
KEY2
GND
R911
3.3k
R912
10k
R913
3.3k
R914
10k
S902
S901
S900
H3
<CONTROL SW>
B-:SSBE3.<...>-H3.
B-:SSBE3.<...>-F1.
S601
F601
5.0A
CN604
5P
AC OUT
NC
NC
NC
AC OUT
TO B BOARD
CN602
CN603
4P
AC IN
NC
NC
AC IN
F1
<AC IN POWER SW>

H1 [CO
Y-

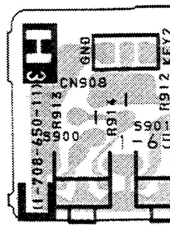
– H1 BOARD


J900
(1-708-650-11)
L900
C903
C902

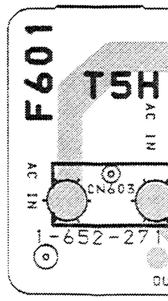
– H2 BOARD


1-652-269-1
R900
C904
D901
(1-708-650-11)
R90

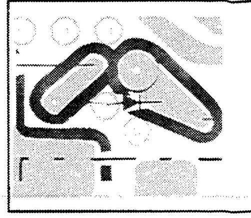
– H3 BOARD


H3
CN908
R913
S900
R912
S901
R914
(1-708-650-11)

– F1 BOARD

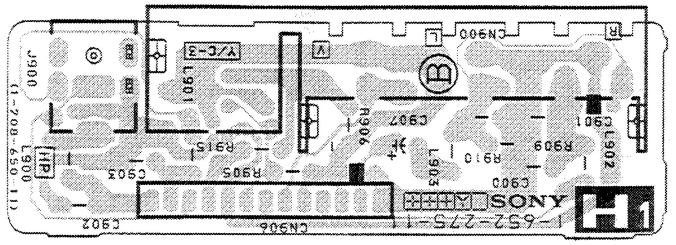

F601
T5H
AC IN
CN603
1-652-271

H1 [CONTROL SW, AUDIO IN Y-CHROMA IN, HEADPHONE IN] **H2** [SIRCS RECEIVE INDICATOR] **H3** [CONTROL SW] **F1** [AC IN POWER SW] **D** [HV OUT PIN OUT POWER SUPPLY]

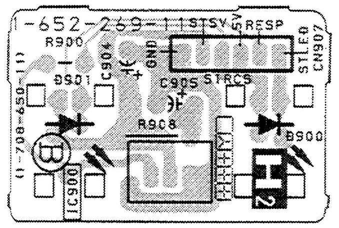


NOTE:
The circuit in
600 Vp-p. Ca
inspection or

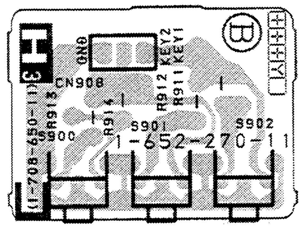
– H1 BOARD –


J900
Y/C-3
L901
CN900
R906
C907
R915
R905
R910
R909
L902
C903
C902
CN906
SONY
1-652-275-11
H1

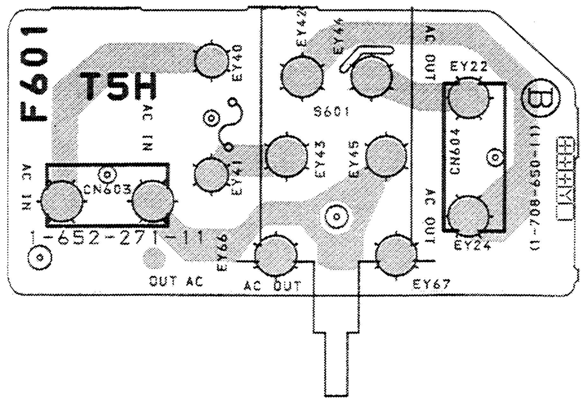
– H2 BOARD –

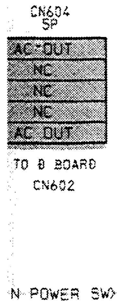

1-652-269-11
STSY
RESP
STLED
CN907
R900
D901
C905
STRCS
R908
D900
H2

– H3 BOARD –

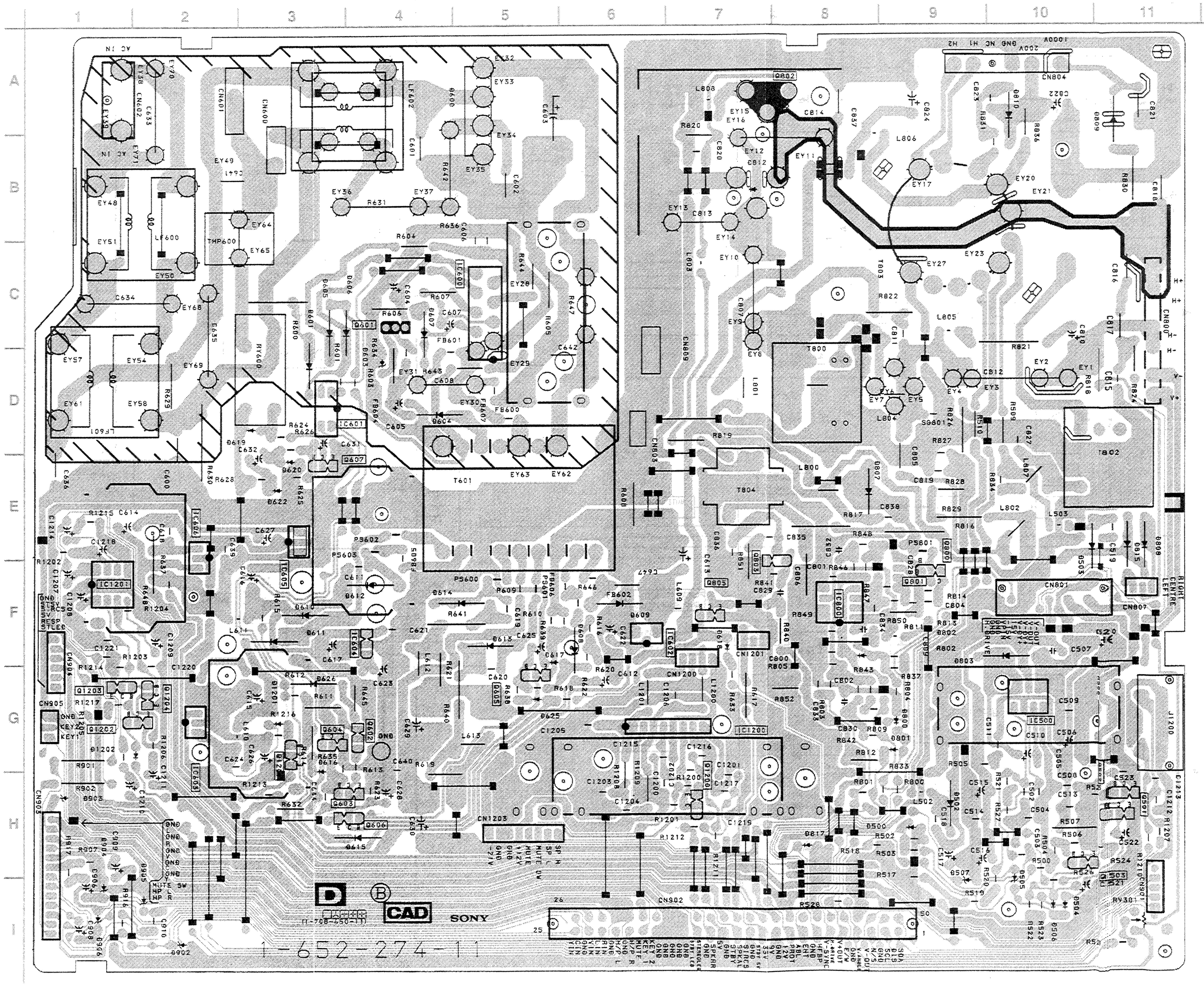

H3
CN908
KEY2
KEY1
S901
S902
S900
1-652-270-11

– F1 BOARD –

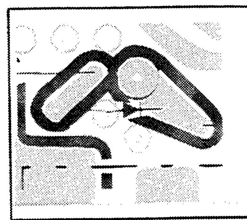

F601
T5H
AC IN
CN603
1-652-271-11
S601
CN604
AC OUT
EY22
EY24
EY67
OUT AC


CN604
SP
AC OUT
NC
NC
NC
AC OUT
TO B BOARD
CN602
N POWER SW

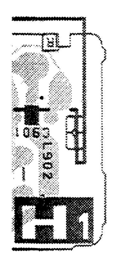
– D BOARD –


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
AC IN
T601
T800
T802
T804
CN804
CN801
CN902
IC601
IC1200
IC1201
IC500
LF600
LF601
1-652-274-11
SONY
CAD
D

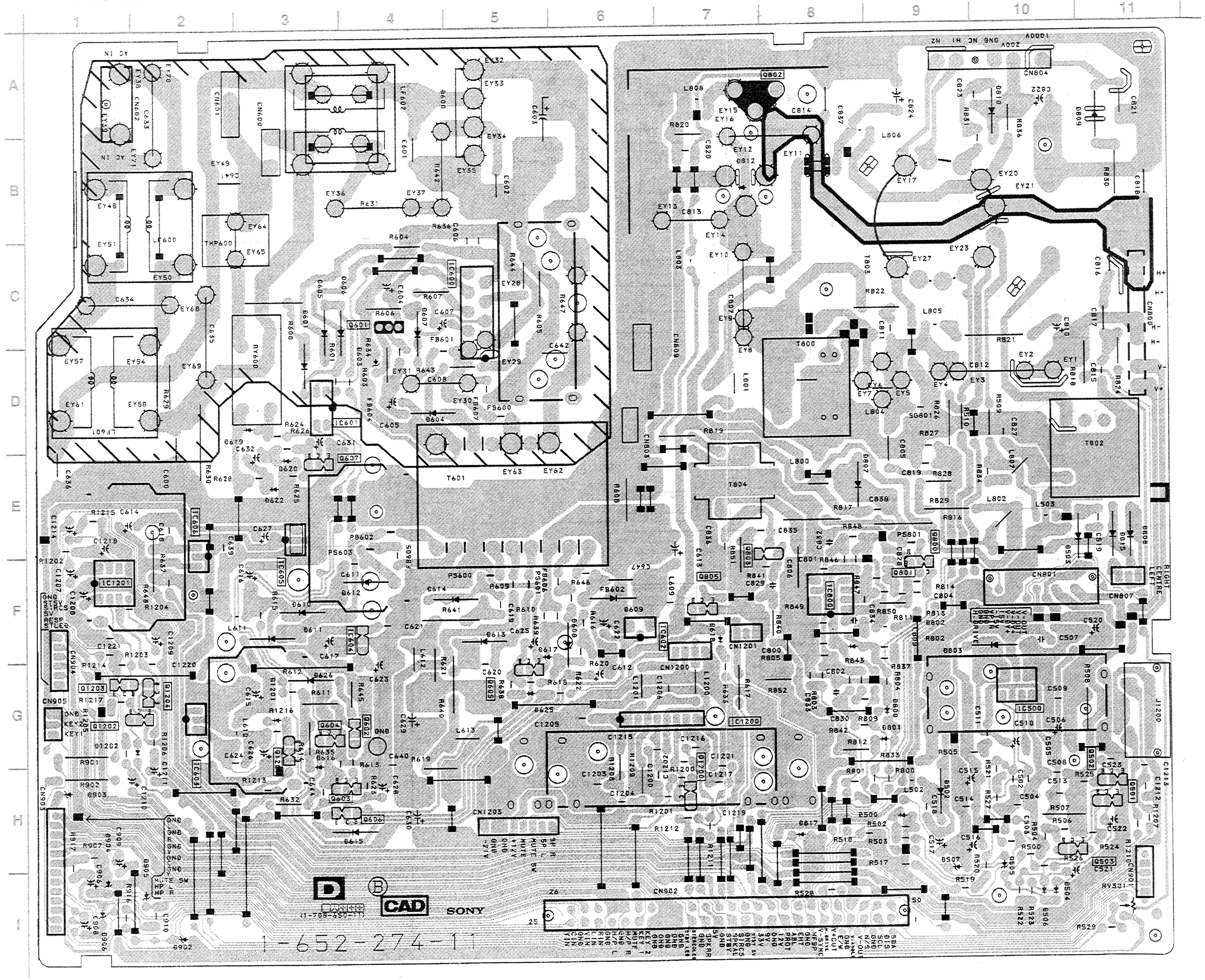
H2 [SIRCS RECEIVE INDICATOR] **H3** [CONTROL SW] **F1** [AC IN POWER SW] **D** [HV OUT PIN OUT POWER SUPPLY]



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.


1063
L1902
H1

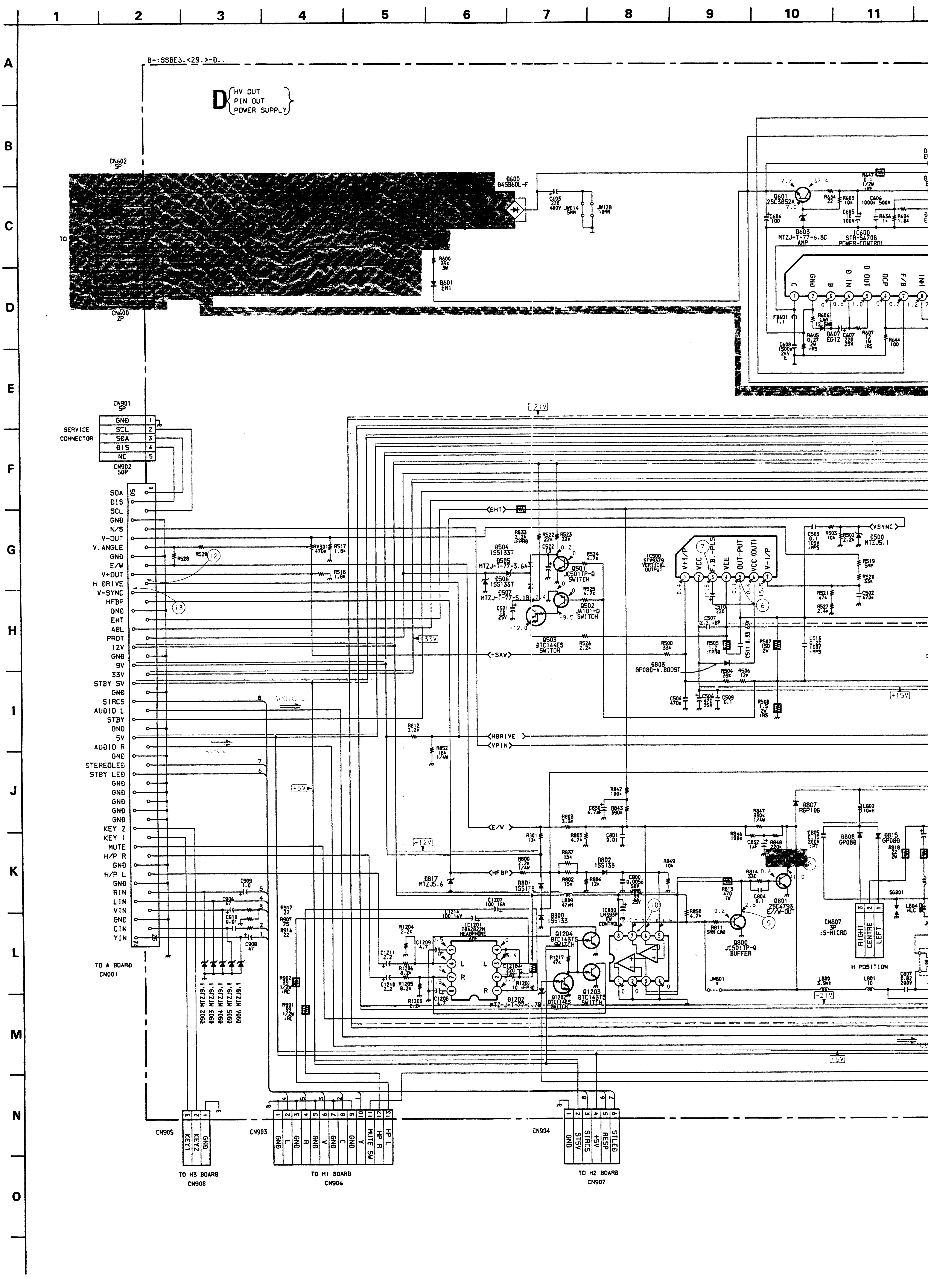
– D BOARD –

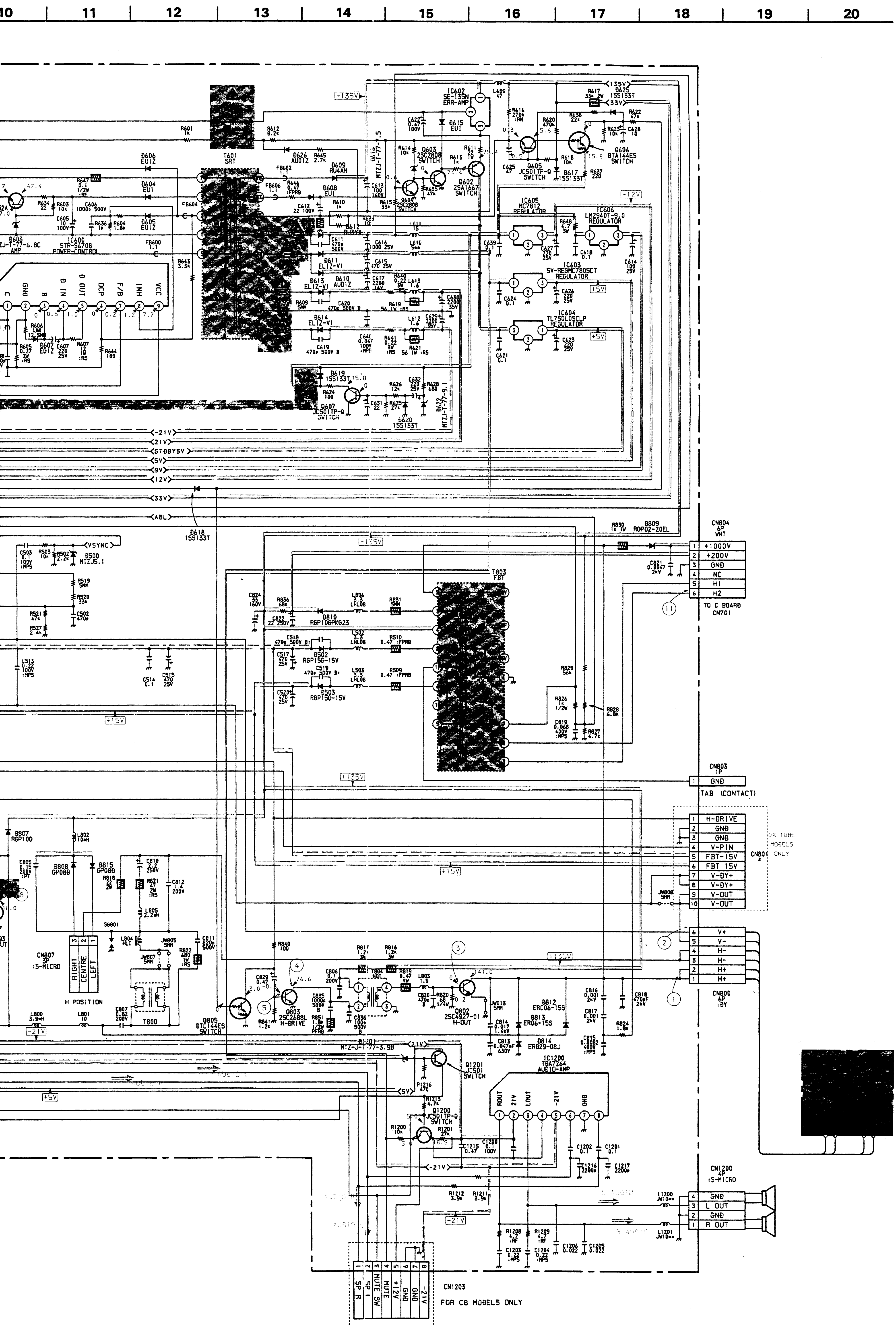

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
T601
T800
T802
T804
IC1201
IC1200
IC500
IC600
IC601
IC602
IC603
IC604
IC605
IC606
IC800
Q802
CN801
CN902
CN905
CN903
CN1203
J1200
RIGHT
CENTRE
LEFT
D
B
CAD
SONY
(1-709-650-11)
1-652-274-11

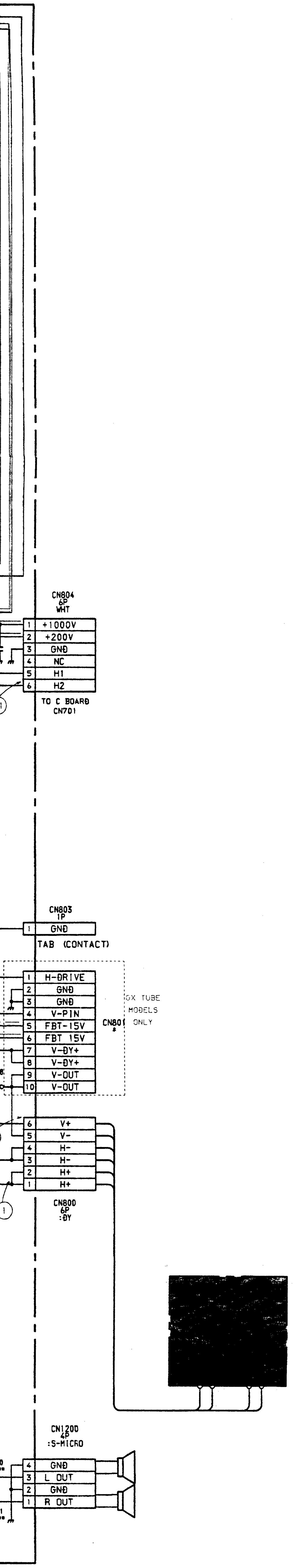
IC	
IC500	G - 10
IC600	C - 5
IC601	D - 4
IC602	F - 7
IC603	H - 2
IC604	F - 4
IC605	F - 3
IC606	E - 2
IC800	F - 8
IC1200	G - 7
IC1201	F - 1

TRANSISTOR	
Q501	H - 11
Q502	H - 11
Q503	I - 11
Q601	C - 4
Q602	G - 4
Q603	H - 3
Q604	G - 3
Q605	G - 5
Q606	H - 4
Q607	E - 4
Q800	E - 9
Q801	F - 9
Q802	A - 8
Q803	F - 7
Q805	F - 7
Q1200	H - 7

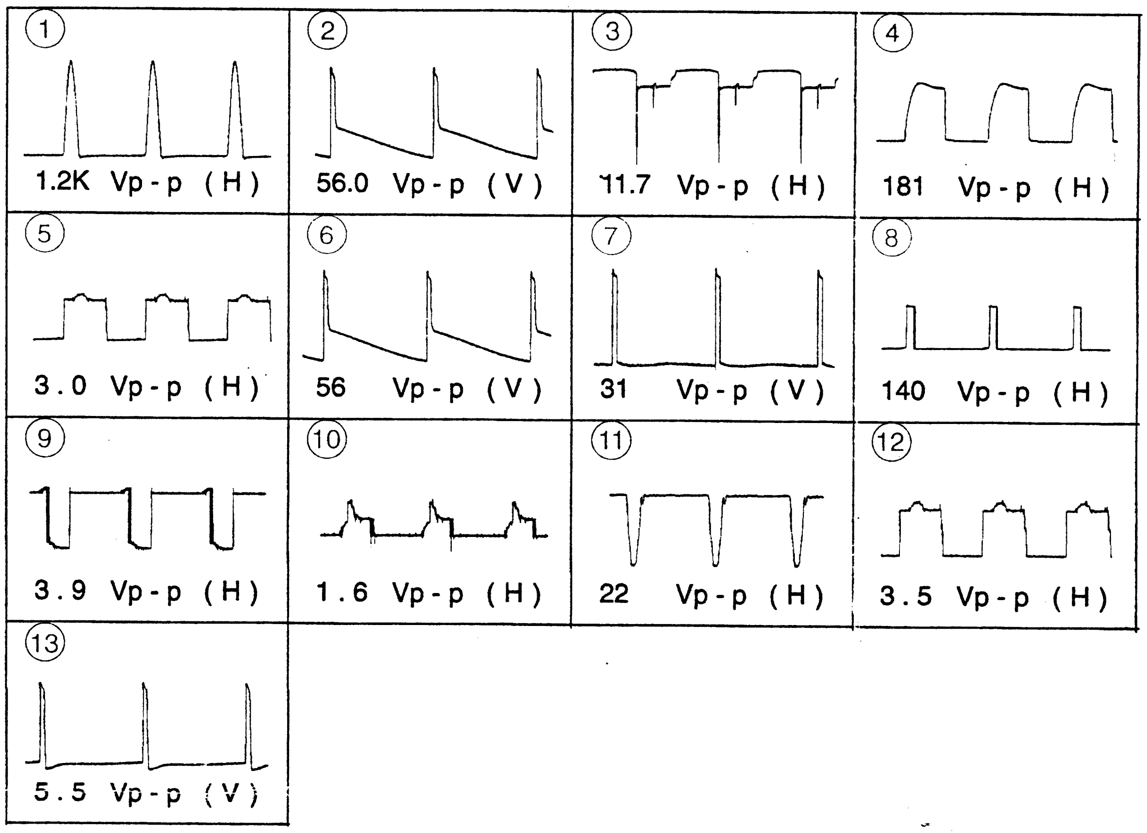
DIODE	
D500	G - 9
D502	G - 9
D503	F - 10
D504	I - 10
D505	I - 10
D506	I - 10
D507	G - 9
D600	A - 4
D601	C - 3
D603	D - 4
D604	D - 4
D605	C - 3
D606	C - 4
D607	C - 4
D608	F - 6
D609	F - 6
D610	F - 3
D611	F - 3
D612	F - 4
D613	F - 5
D614	F - 4
D615	H - 4
D616	G - 3
D617	F - 5
D618	F - 7
D619	D - 2
D620	E - 3
D622	E - 3
D625	G - 5
D626	G - 3
D800	G - 9
D801	G - 9
D802	F - 9
D803	F - 9
D807	E - 9
D808	E - 11
D809	A - 11
D810	A - 10
D812	B - 7
D815	E - 11
D817	H - 8
D902	I - 2
D903	H - 1
D904	H - 1
D905	H - 2
D906	I - 1


1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H I J K L M N O
B-:SSBE3.<29.>-B..
D HV OUT
PIN OUT
POWER SUPPLY
CN602 5P
TO
CN600 2P
D600 D4SB60L-F
C603 220 400V
JW014 5MM
JW128 10MM
R600 39k 5W
D601 EM1
Q601 2SC3852A
D603 MTZJ-T-77-6.8C AMP
IC600 STR-S6708 POWER-CONTROL
C GND B D IN D OUT OCP F/B INH
FB601 1.1
C608 1500P 2kV
R606 LN
R605 0.27 2W :RS
D607 EG1Z
C607 220 25V
R607 12 1W :RS
R644 100
CN901 5P
SERVICE CONNECTOR
GND SCL SDA DIS NC
CN902 50P
SDA DIS SCL GND N/S V-OUT V.ANGLE GND E/W V+OUT H DRIVE V-SYNC HFBP GND EHT ABL PROT 12V GND 9V 33V STBY 5V GND SIRCS AUDIO L STBY GND 5V AUDIO R GND STEREOLED STBY LED GND GND GND GND GND KEY 2 KEY 1 MUTE H/P R GND H/P L GND RIN LIN VIN GND CIN YIN
TO A BOARD CN001
RV301 470k
R517 1.8k
R518 1.8k
R528
R529
(12)
(13)
-21V
EHT
+33V
+SAW
HDRIVE
VPIN
E/W
HFBP
+5V
+12V
VSYNC
D504 1SS133T
D505 MTZJ-T-77-3.6A
D506 1SS133T
D507 MTZJ-T-77-5.1B
Q501 JC501TP-Q SWITCH
Q502 JA101-Q SWITCH
Q503 DTC144ES SWITCH
IC500 STV9379 VERTICAL OUTPUT
V+I/P VCC F.B.-PLS VEE OUT-PUT VCC (OUT) V-I/P
(7)
(6)
D500 MTZJ5.1
D803 GP08G-V.BOOST
+15V
R812 2.2k
R852 18k 1/4W
D817 MTZJ5.6
IC1201 TDA2822M HEADPHONE AMP
Q1204 DTC143TS SWITCH
Q1202 DTC114ES SWITCH
Q1203 DTC143TS SWITCH
D1202 MTZ-J-T-77-7.5B
D800 1SS133
D802 1SS133
IC800 LM393P EW CONTROL
(10)
Q800 JC501TP-Q BUFFER
Q801 2SC4793 E/W-OUT
(8)
(9)
D807 RGP10G
D808 GP08D
D815 GP08D
L802 10mH
CN807 3P :S-MICRO
RIGHT CENTRE LEFT
H POSITION
L800 3.9mH
L801 10
JW801
C807 0.82 200V
D902 MTZJ9.1 D903 MTZJ9.1 D904 MTZJ9.1 D905 MTZJ9.1 D906 MTZJ9.1
CN905 KEY1 KEY2 GND
TO H3 BOARD CN908
CN903 GND L GND R GND V GND C GND Y MUTE SW HP R HP L
TO H1 BOARD CN906
CN904 GND STSV SIRCS +5V RESP STLED
TO H2 BOARD CN907

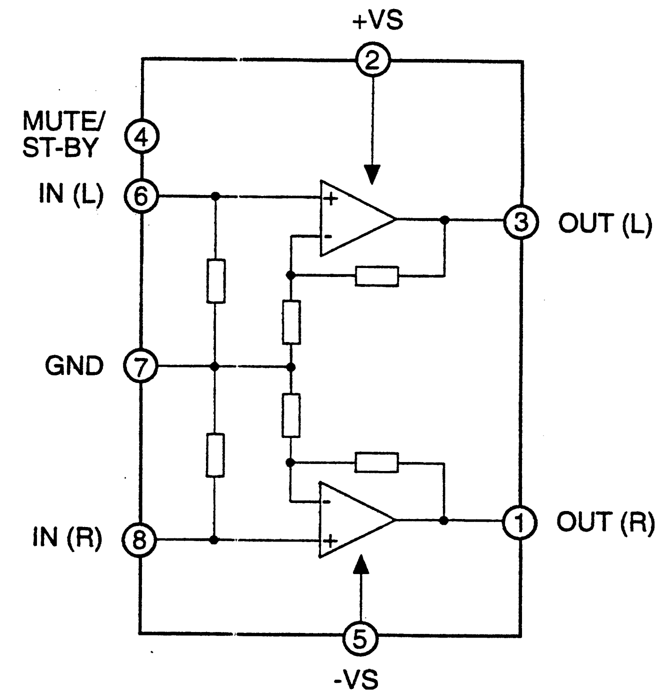

10
11
12
13
14
15
16
17
18
19
20
IC600 STR-S6708 POWER-CONTROL
GND
B
Ø IN
Ø OUT
OCP
F/B
INH
VCC
T601 SRT
IC602 SE-135N ERR-AMP
Q603 2SC2808 SWITCH
Q604 2SC2808 SWITCH
Q602 2SA1667 SWITCH
Q605 JC501TP-Q SWITCH
Q606 DTA144ES SWITCH
IC605 MC7812 REGULATOR
IC606 LM2940T-9.0 REGULATOR
IC603 5V-REGMC7805CT REGULATOR
IC604 TL750L05CLP REGULATOR
Q607 JC501TP-Q SWITCH
+135V
+12V
+5V
+15V
-21V
21V
STBBY5V
5V
9V
12V
33V
ABL
VSYNC
D618 1SS133T
T803 FBT
CN804 6P WHT
+1000V
+200V
GND
NC
H1
H2
TO C BOARD CN701
CN803 1P
GND
TAB (CONTACT)
H-DRIVE
V-PIN
FBT-15V
FBT 15V
V-DY+
V-OUT
GX TUBE MODELS ONLY
CN801
V+
V-
H-
H+
CN800 6P :DY
CN807 3P :S-MICRO
RIGHT
CENTRE
LEFT
H POSITION
T800
Q805 DTC144ES SWITCH
Q803 2SC2688L H-DRIVE
T804 HDT
Q802 2SC4927-01 H-OUT
D812 ERC06-15S
D813 ERD6-15S
D814 ERD29-08J
Q1201 JC501 SWITCH
Q1200 JC501TP-Q SWITCH
IC1200 TDA7264 AUDIO-AMP
ROUT
LOUT
CN1200 4P :S-MICRO
L OUT
R OUT
CN1203
SP R
SP L
MUTE SW
MUTE
+12V
FOR C8 MODELS ONLY


CN804
6P
WHT
1 +1000V
2 +200V
3 GND
4 NC
5 H1
6 H2
TO C BOARD
CN701
CN803
1P
1 GND
TAB (CONTACT)
1 H-DRIVE
2 GND
3 GND
4 V-PIN
5 FBT-15V
6 FBT 15V
7 V-DY+
8 V-DY+
9 V-OUT
10 V-OUT
CN801
8
DX TUBE
MODELS
ONLY
6 V+
5 V-
4 H-
3 H-
2 H+
1 H+
CN800
6P
:DY
CN1200
4P
:S-MICRO
4 GND
3 L OUT
2 GND
1 R OUT

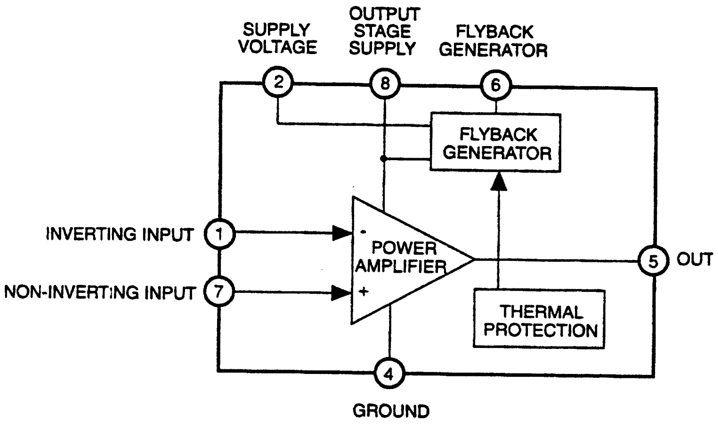
WAVEFORMS D BOARD



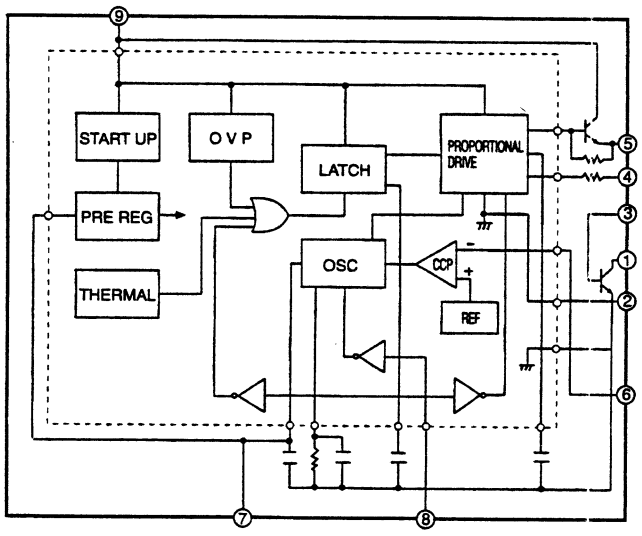
D BOARD IC1200 TDA7264

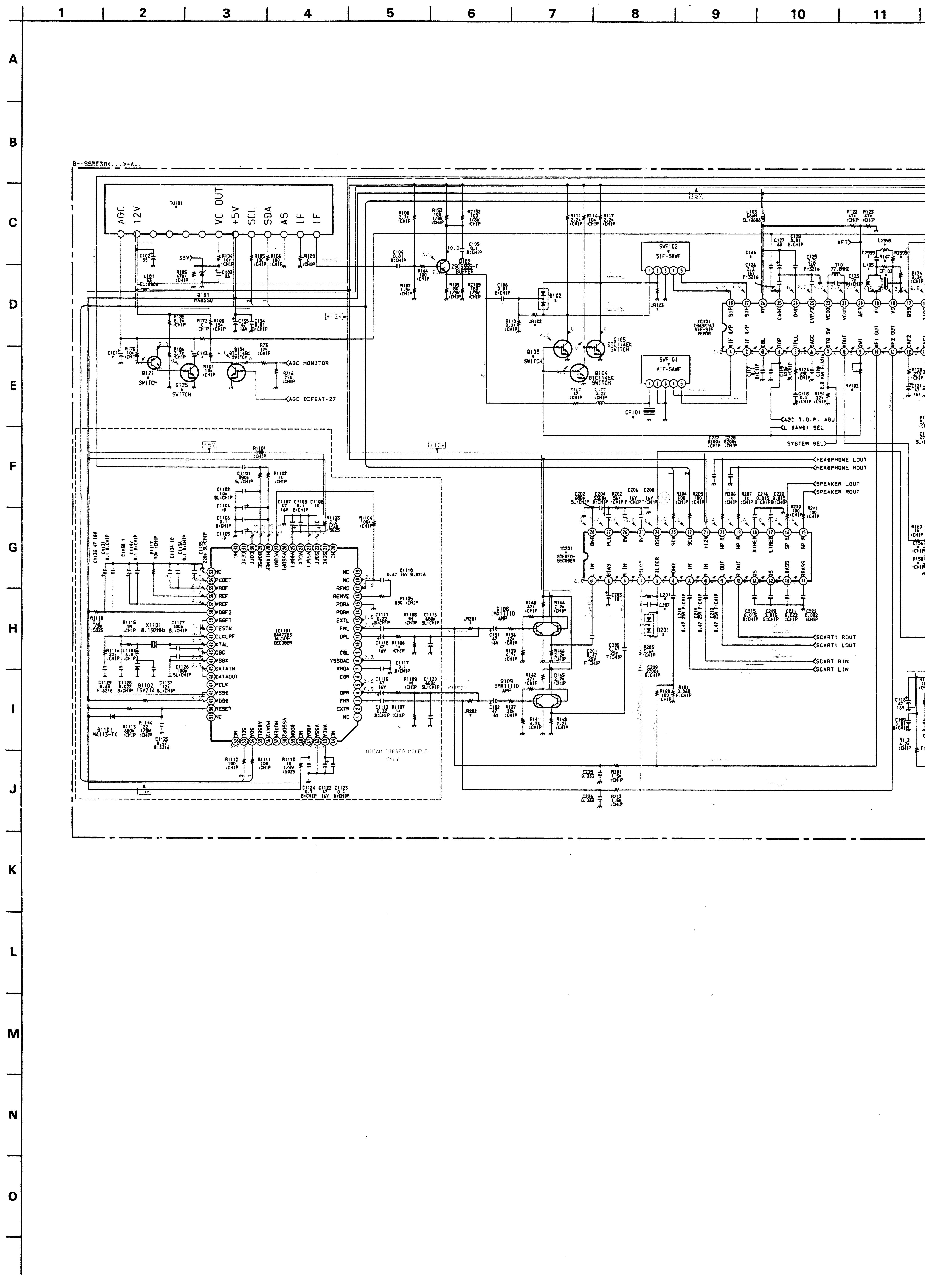

+VS
②
MUTE/
ST-BY ④
IN (L) ⑥
GND ⑦
IN (R) ⑧
③ OUT (L)
① OUT (R)
⑤
-VS

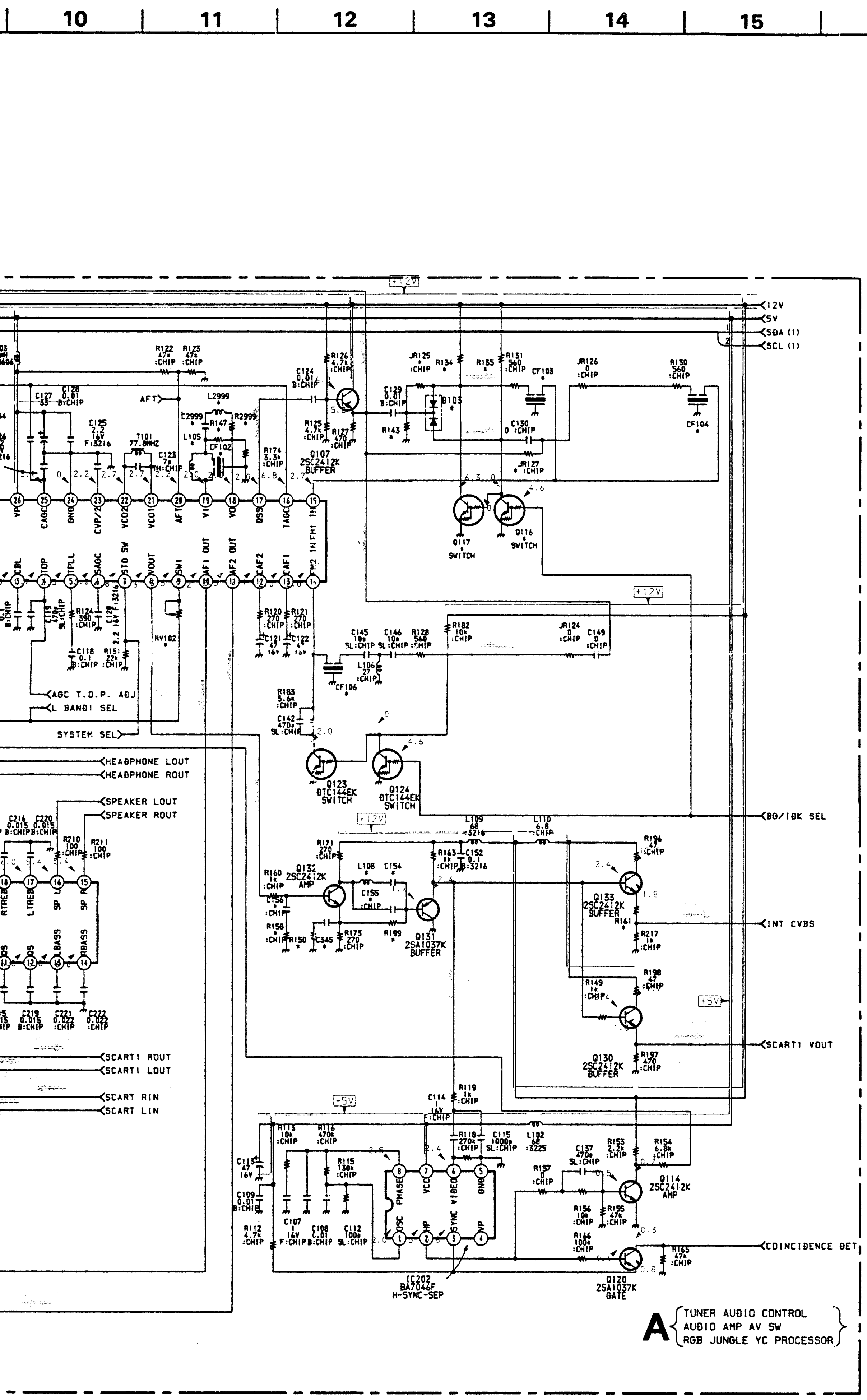
D BOARD IC500 STV9379

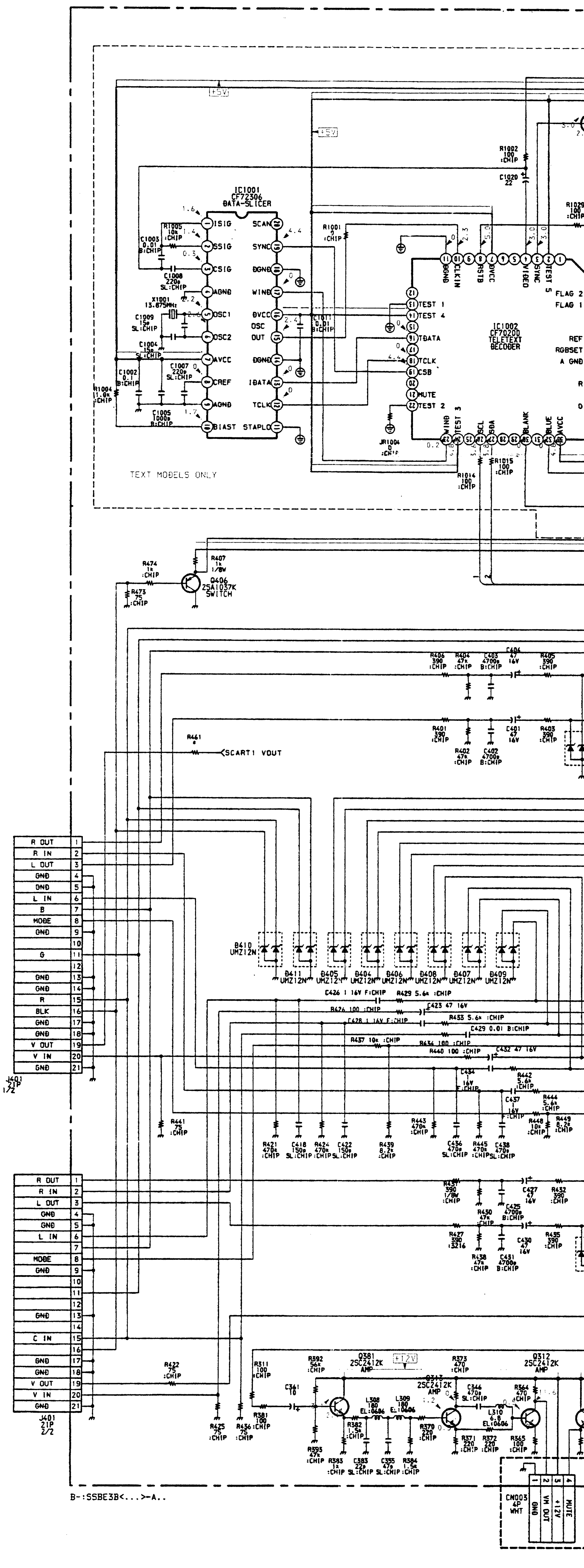

SUPPLY
VOLTAGE
OUTPUT
STAGE
SUPPLY
FLYBACK
GENERATOR
②
⑧
⑥
FLYBACK
GENERATOR
INVERTING INPUT ①
NON-INVERTING INPUT ⑦
POWER
AMPLIFIER
THERMAL
PROTECTION
⑤ OUT
④
GROUND

D BOARD IC600 STR-S6708


⑨
START UP
OVP
LATCH
PROPORTIONAL
DRIVE
PRE REG
THERMAL
OSC
CCP
REF
⑤
④
③
①
②
⑥
⑦
⑧


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
B-:SSBE3B<...>-A..
TU101
AGC
12V
VC OUT
+5V
SCL
SDA
AS
IF
IF
33V
D101 MA8330
Q121 SWITCH
Q125 SWITCH
Q134 DTC114EK SWITCH
AGC MONITOR
AGC DEFEAT-27
+12V
+5V
Q102 2SC3355-T BUFFER
D102
Q103 SWITCH
Q105 DTC114EK SWITCH
Q104 DTC114EK SWITCH
SWF102 SIF-SAWF
SWF101 VIF-SAWF
CF101
IC101 TDA9814T VIF-SIF DEMOD
SIF
VIF I/P
AFT
T101 77.8MHz
L2999
CF102
RV102
AGC T.O.P. ADJ
L BAND1 SEL
SYSTEM SEL
HEADPHONE LOUT
HEADPHONE ROUT
SPEAKER LOUT
SPEAKER ROUT
IC201 STEREO-DECODER
D201
SCART1 ROUT
SCART1 LOUT
SCART RIN
SCART LIN
Q108 IMX1T110 AMP
Q109 IMX1T110 AMP
IC1101 SAA7283 NICAM-DECODER
X1101 8.192MHz
D1102 1SV214
D1101 MA113-TX
NICAM STEREO MODELS ONLY

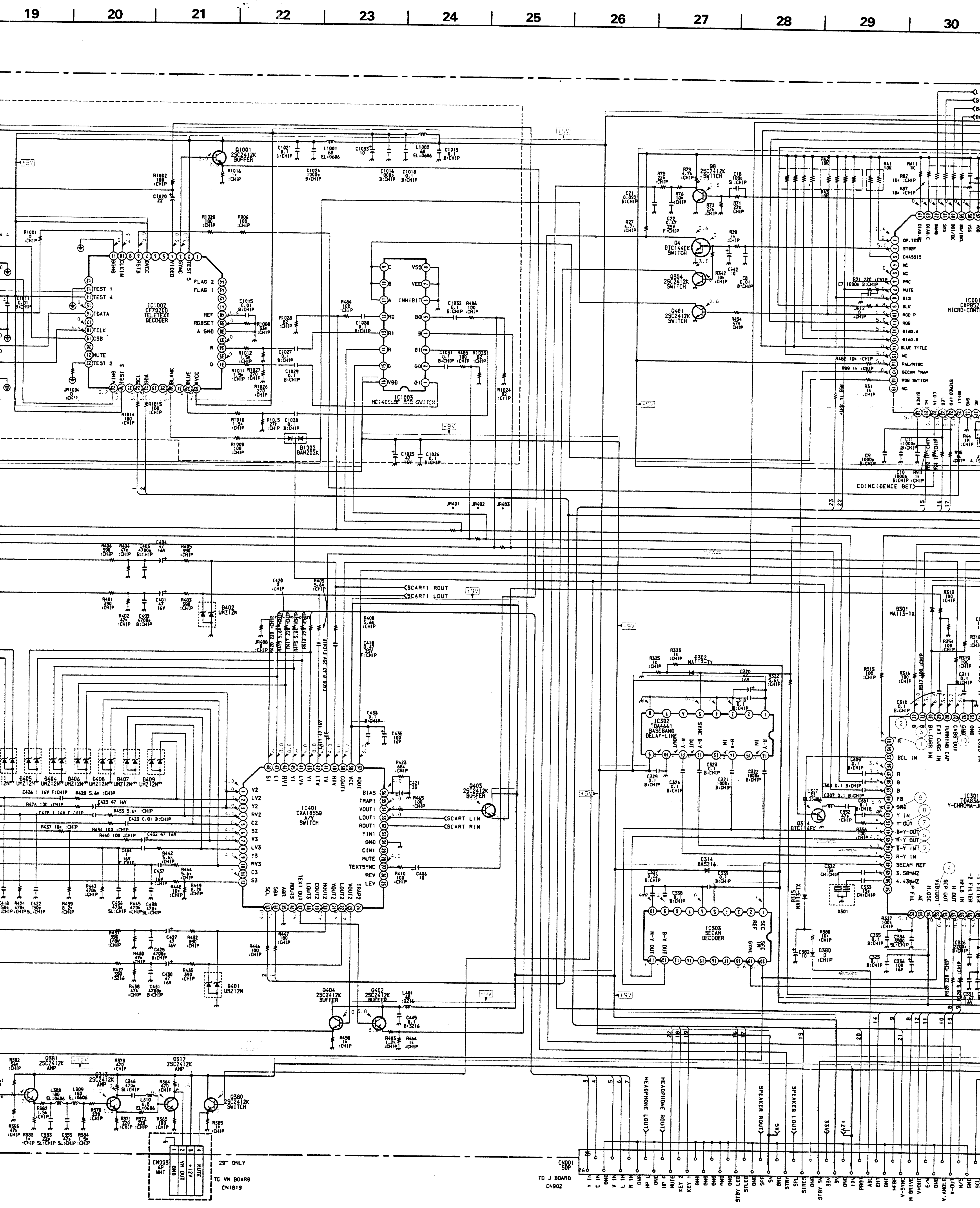

10
11
12
13
14
15
16
17
18
19
20
21
IC202 BA7046F H-SYNC-SEP
Q107 2SC2412K BUFFER
Q117 SWITCH
Q116 SWITCH
Q123 DTC144EK SWITCH
Q124 DTC144EK SWITCH
Q132 2SC2412K AMP
Q131 2SA1037K BUFFER
Q133 2SC2412K BUFFER
Q130 2SC2412K BUFFER
Q114 2SC2412K AMP
Q120 2SA1037K GATE
AGC T.O.P. ADJ
L BAND1 SEL
SYSTEM SEL
HEADPHONE LOUT
HEADPHONE ROUT
SPEAKER LOUT
SPEAKER ROUT
BG/DK SEL
INT CVBS
SCART1 VOUT
SCART1 ROUT
SCART1 LOUT
SCART RIN
SCART LIN
COINCIDENCE DET
12V
5V
SDA (1)
SCL (1)
A
TUNER AUDIO CONTROL
AUDIO AMP AV SW
RGB JUNGLE YC PROCESSOR


IC1001 CF72306 DATA-SLICER
IC1002 CF70200 TELETEXT DECODER
TEXT MODELS ONLY
Q406 2SA1037K SWITCH
SCART1 VOUT
J401 21P 1/2
J401 21P 2/2
Q301 2SC2412K AMP
Q317 2SC2412K AMP
Q312 2SC2412K AMP
CN003 4P WHT
GND
VM OUT
+12V
MUTE
B-:SSBE3B<...>-A..

Voltages indicated with the mark ※ on the schematic diagram are shown in the table below.

A BOARD

IC	Pin	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC301	17	4.0	4.0	4.0	0
	35	3.6	2.5	3.5	3.5
	44	1.5	3.1	1.5	1.5
	45	1.5	3.0	1.5	1.5
	48	1.7	4.4	1.6	1.7
	49	1.4	1.4	2.0	1.4
	50	2.0	2.0	1.4	2.0
	63	3.4	2.5	2.2	2.5
IC303	1	1.7	4.4	1.6	1.7
	11	1.5	3.0	1.5	1.5
	12	1.5	3.1	1.5	1.5



19
20
21
22
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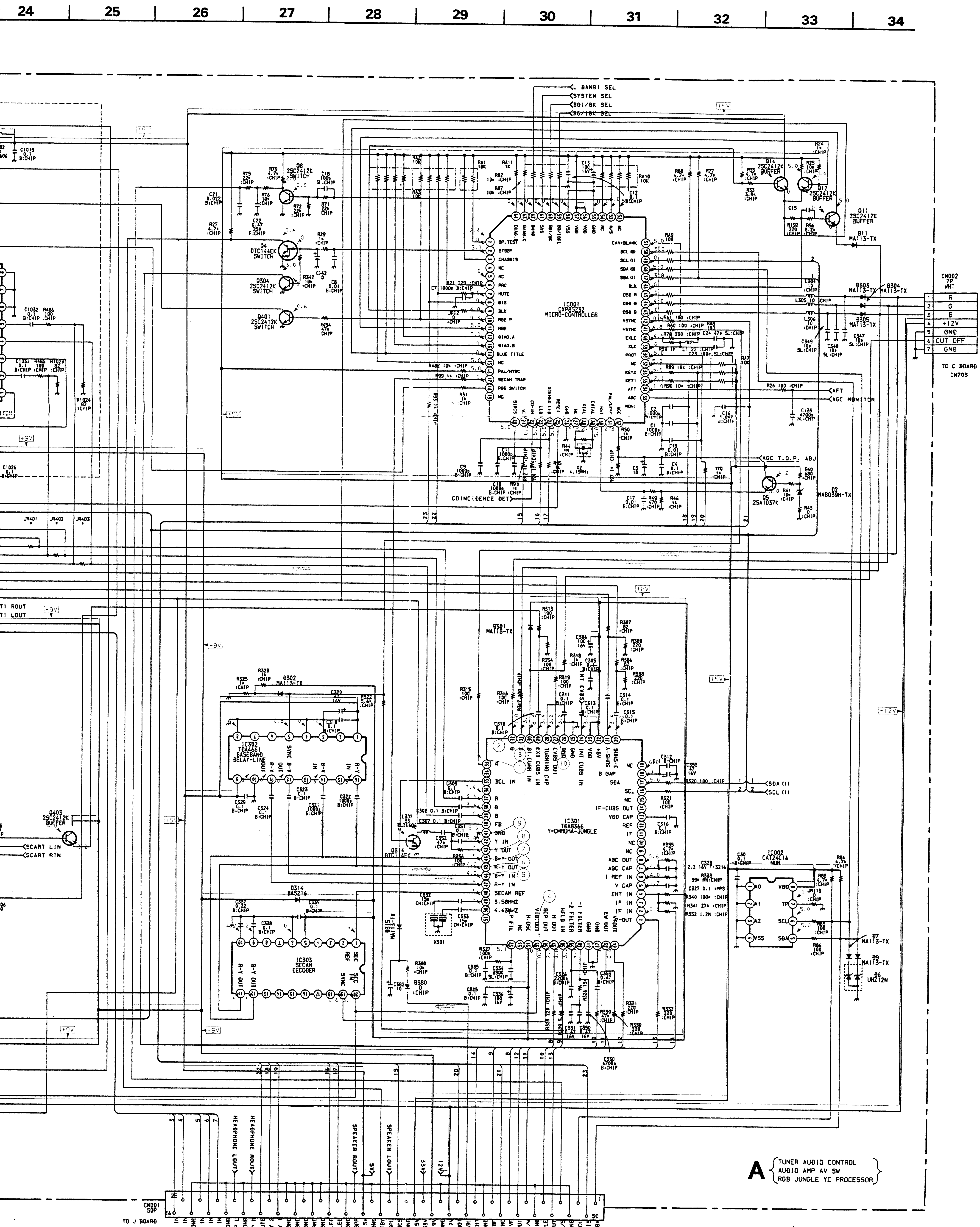
25
26
27
28
29
30
Q1001 2SC2412K BUFFER
IC1002 CF70200 TELETEXT DECODER
IC1003 MC14053BF RGB SWITCH
D1002 DAN202K
Q8 2SC2412K SWITCH
Q4 DTC144EK SWITCH
Q304 2SC2412K SWITCH
Q401 2SC2412K SWITCH
IC001 CXP852 MICRO-CONTROLLER
COINCIDENCE DET
D402 UMZ12N
D401 UMZ12N
D405 UMZ12N
D404 UMZ12N
D406 UMZ12N
D408 UMZ12N
D407 UMZ12N
D409 UMZ12N
IC401 CXA1855Q A/V SWITCH
Q403 2SC2412K BUFFER
Q404 2SC2412K BUFFER
Q402 2SC2412K BUFFER
SCART1 ROUT
SCART1 LOUT
SCART LIN
SCART RIN
IC302 TDA4661 BASEBAND DELAY-LINE
D302 MA113-TX
IC303 SECAM DECODER
D314 BAS216
D301 MA113-TX
IC301 TDA836 Y-CHROMA-J
Q314 DTC114EK
X301
Q381 2SC2412K AMP
Q313 2SC2412K AMP
Q312 2SC2412K AMP
Q380 2SC2412K SWITCH
CN003 4P WHT
GND VM OUT +12V MUTE
29" ONLY
TO VM BOARD CN1819
CN001 50P
TO J BOARD CN902
HEADPHONE LOUT
HEADPHONE ROUT
SPEAKER ROUT
SPEAKER LOUT
5V
33V
12V
+5V
+9V
+12V

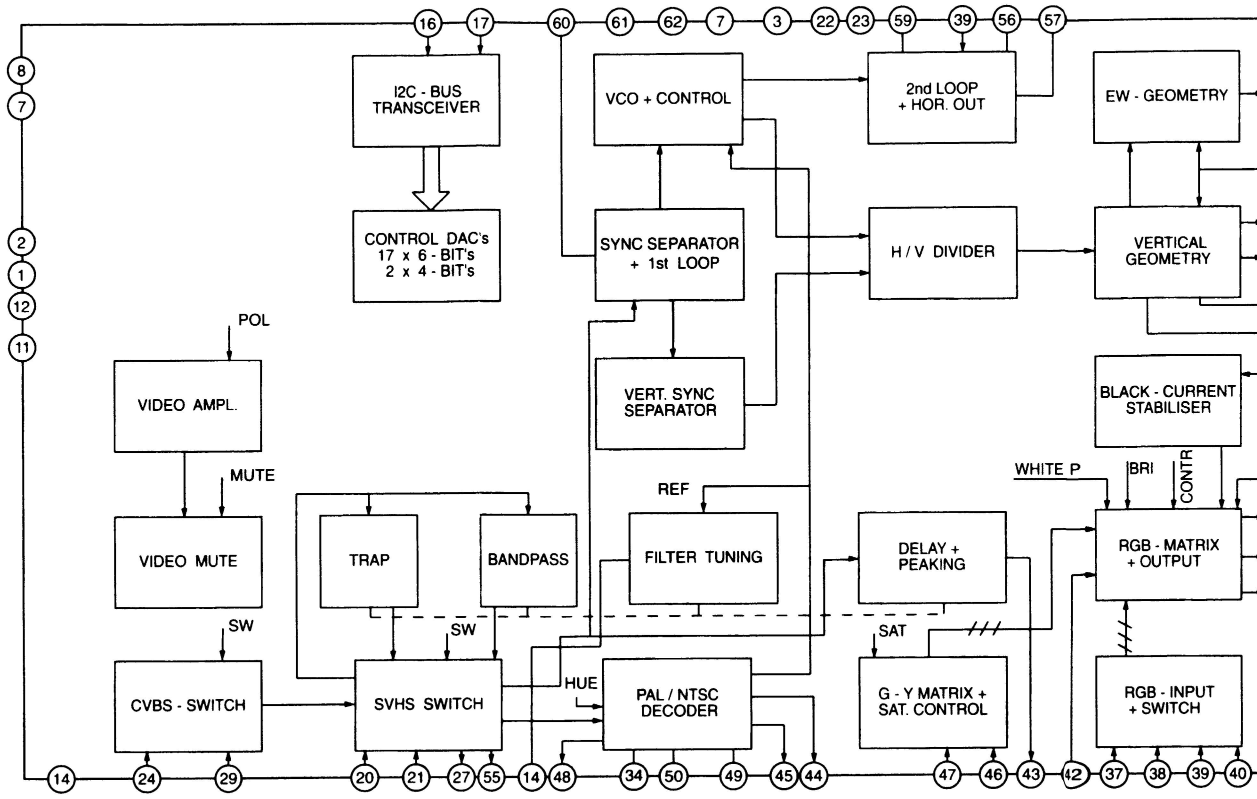

24
25
26
27
28
29
30
31
32
33
34
L BAND1 SEL
SYSTEM SEL
BG1/BK SEL
BG/IDK SEL
+5V
IC001
CXP85232
MICRO-CONTROLLER
Q8 2SC2412K SWITCH
Q4 DTC144EK SWITCH
Q304 2SC2412K SWITCH
Q401 2SC2412K SWITCH
Q14 2SC2412K BUFFER
Q12 2SC2412K BUFFER
Q11 2SC2412K BUFFER
D11 MA113-TX
D303 MA113-TX
D304 MA113-TX
D305 MA113-TX
CN002 7P WHT
R
G
B
+12V
GND
CUT OFF
GND
TO C BOARD CN703
AFT
AGC MONITOR
AGC T.O.P. ADJ
Q5 2SA1037K
D2 MA8039H-TX
COINCIDENCE DET
X2 4.19MHz
+9V
+8V
SCART LIN
SCART RIN
Q403 2SC2412K BUFFER
IC302 TDA4661 BASEBAND DELAY-LINE
IC303 SECAM DECODER
D302 MA113-TX
D314 BAS216
IC301 TDA8366 Y-CHROMA-JUNGLE
Q314 DTC114EK
D301 MA113-TX
D315 MA113-TX
X301
SDA (I)
SCL (I)
IC002 CAT24C16 NUM
D7 MA113-TX
D9 MA113-TX
D6 UMZ12N
+12V
+5V
HEADPHONE LOUT
HEADPHONE ROUT
SPEAKER ROUT
SPEAKER LOUT
33V
12V
5V
CN001 50P
TO J BOARD CN902
Y IN
C IN
GND
V IN
L IN
R IN
GND
HP L
HP R
MUTE
KEY 2
KEY 1
GND
GND
GND
STBY LED
STLED
GND
SPR
5V
STBY
SPL
SIRCS
STBY 5V
33V
9V
12V
PROT
ABL
EHT
GND
HFBF
V-SYNC
H DRIVE
V+OUT
E/W
GND
V.ANGLE
V-OUT
N/S
GND
SCL
BIS
SDA

A {TUNER AUDIO CONTROL
AUDIO AMP AV SW
RGB JUNGLE YC PROCESSOR}

A BOARD * MARK

Ref	X2901D	X2901A	X2900B	X2901B	X2903E	X2902L	X2902U	X2901K
C101	22mF	22mF	4.7mF	4.7mF	22mF	22mF	22mF	22mF
C143	-	-	100mF 16V	100mF 16V	-	-	-	-
C144	-	-	1mF	1mF	-	-	-	-
C154	180pF	180pF	150pF	150pF	180pF	-	-	180pF
C155	47pF	47pF	33pF	33pF	47pF	-	-	47pF
C156	18pF	18pF	-	-	18pF	-	-	18pF
C207	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	-	-	0.0018mF 100V
CF101	EFCV4045A4	EFCV4045A4	EFCV4045A4	EFCV4045A4	EFCV4045A4	-	-	EFCV4045A4
CF102	5.5mHz	5.5mHz	5.5mHz/6.6mHz	5.5mHz/6.6mHz	5.5mHz	6.0mHz	6.0mHz	5.5mHz
CF103	5.5mHz	5.5mHz	5.5mHz	5.5mHz	5.5mHz	-	-	5.5mHz
CF104	6.5mHz	-	6.0mHz	6.0mHz	-	SFE6.0MB	SFE6.0MB	6.5mHz
CF106	5.75mHz	5.75mHz	5.75mHz	5.75mHz	5.75mHz	-	-	5.75mHz
D102	-	-	DAN202K	DAN202K	-	-	-	-
D103	DAN202K	-	DAN202K	DAN202K	-	-	-	DAN202K
D201	DA204K	DA204K	DA204K	DA204K	DA204K	-	-	DA204K
IC201	TDA6612	TDA6612	TDA6612	TDA6612	TDA6612	TDA6622	TDA6622	TDA6612
IC303	TDA8395T	-	TDA8395T	TDA8395T	-	-	-	TDA8395T
JR122	0 :CHIP	0 :CHIP	-	-	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP
JR123	0 :CHIP	0 :CHIP	-	-	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP
JR125	-	0 :CHIP	-	-	0 :CHIP	-	-	-
JR127	-	-	-	-	-	0 :CHIP	-	-
JR201	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP	-	-	-	0 :CHIP
JR202	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP	-	-	-	0 :CHIP
JR401	-	-	0 :CHIP	-	-	-	-	-
JR402	-	-	0 :CHIP	-	-	-	-	-
JR403	-	-	0 :CHIP	-	-	-	-	-
L105	15µH	15µH	8.2µH	8.2µH	15µH	15µH	15µH	15µH
L108	15µH	15µH	27µH	27µH	15µH	-	-	15µH
L201	4.7mmH	4.7mmH	4.7mmH	4.7mmH	4.7mmH	-	-	4.7mmH
Q103	-	-	DTC114EK	DTC114EK	-	-	-	-
Q116	DTC144EK	-	DTC144EK	DTC144EK	-	-	-	DTC144EK
Q117	DTC144EK	-	DTC144EK	DTC144EK	-	-	-	DTC144EK
Q121	-	-	2SA1037K	2SA1037K	-	-	-	-
Q125	-	-	DTC114EK	DTC114EK	-	-	-	-
R134	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R135	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R143	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R147	270	270	150	150	270	270	270	270
R158	12K	12K	-	-	12K	-	-	12K
R199	330	330	470	470	330	-	-	330
RV102	-	-	22K	22K	-	-	-	-
SWF101	K3953M	K3953M	K3953M	K3953M	K3953M	J3950M	J3950M	K3953M
SWF102	K9350M	K9350M	K9453M	K9453M	K9350M	K9350M	K9350M	K9350M
TU101	UV-916H	UV-916H	UV-916H	UV-916H	UV-916H	U-944C	U-944C	UV-916H

A BOARD IC301 TDA8366T


16
17
60
61
62
7
3
22
23
59
39
56
57
8
7
2
1
12
11
I2C - BUS TRANSCEIVER
CONTROL DAC's 17 x 6 - BIT's 2 x 4 - BIT's
VCO + CONTROL
SYNC SEPARATOR + 1st LOOP
VERT. SYNC SEPARATOR
2nd LOOP + HOR. OUT
H / V DIVIDER
EW - GEOMETRY
VERTICAL GEOMETRY
BLACK - CURRENT STABILISER
POL
VIDEO AMPL.
MUTE
VIDEO MUTE
SW
CVBS - SWITCH
TRAP
BANDPASS
SW
SVHS SWITCH
REF
FILTER TUNING
HUE
PAL / NTSC DECODER
DELAY + PEAKING
SAT
G - Y MATRIX + SAT. CONTROL
WHITE P
BRI
CONTR
RGB - MATRIX + OUTPUT
RGB - INPUT + SWITCH
14
24
29
20
21
27
55
14
48
34
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44
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42
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38
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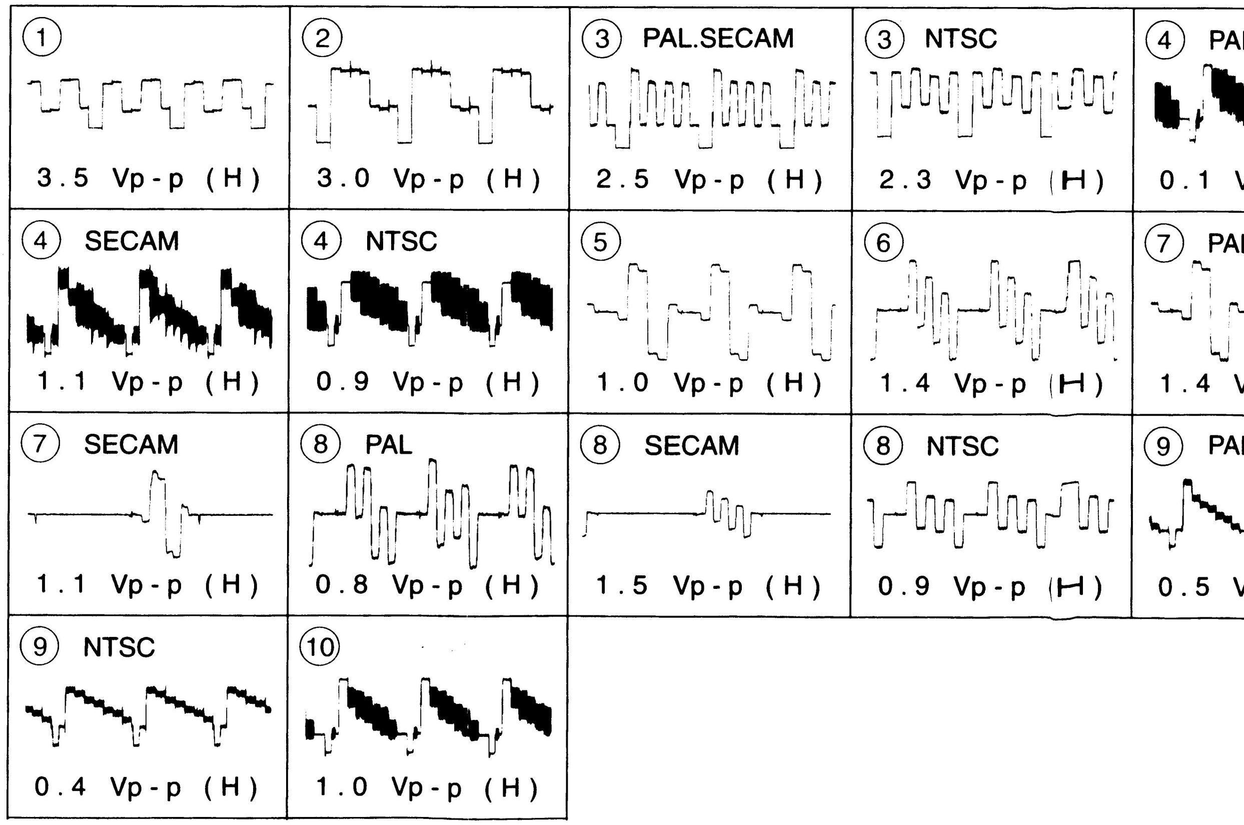
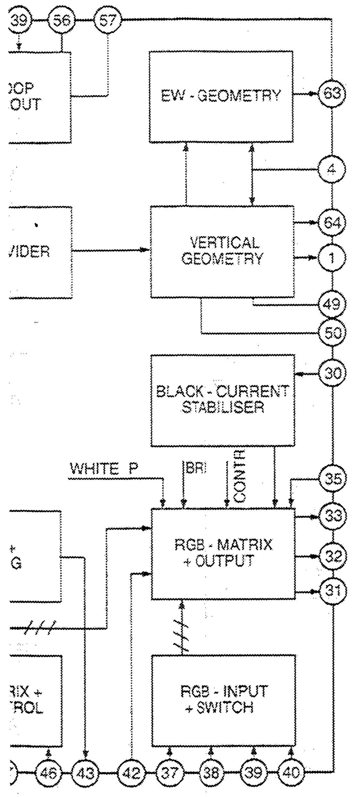
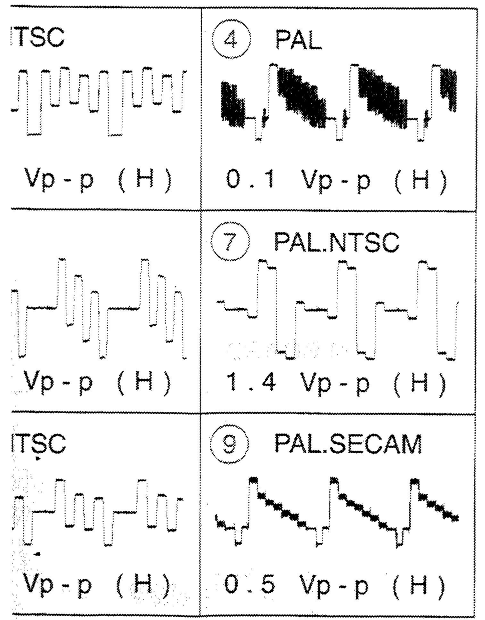
40

WAVEFORMS A BOARD



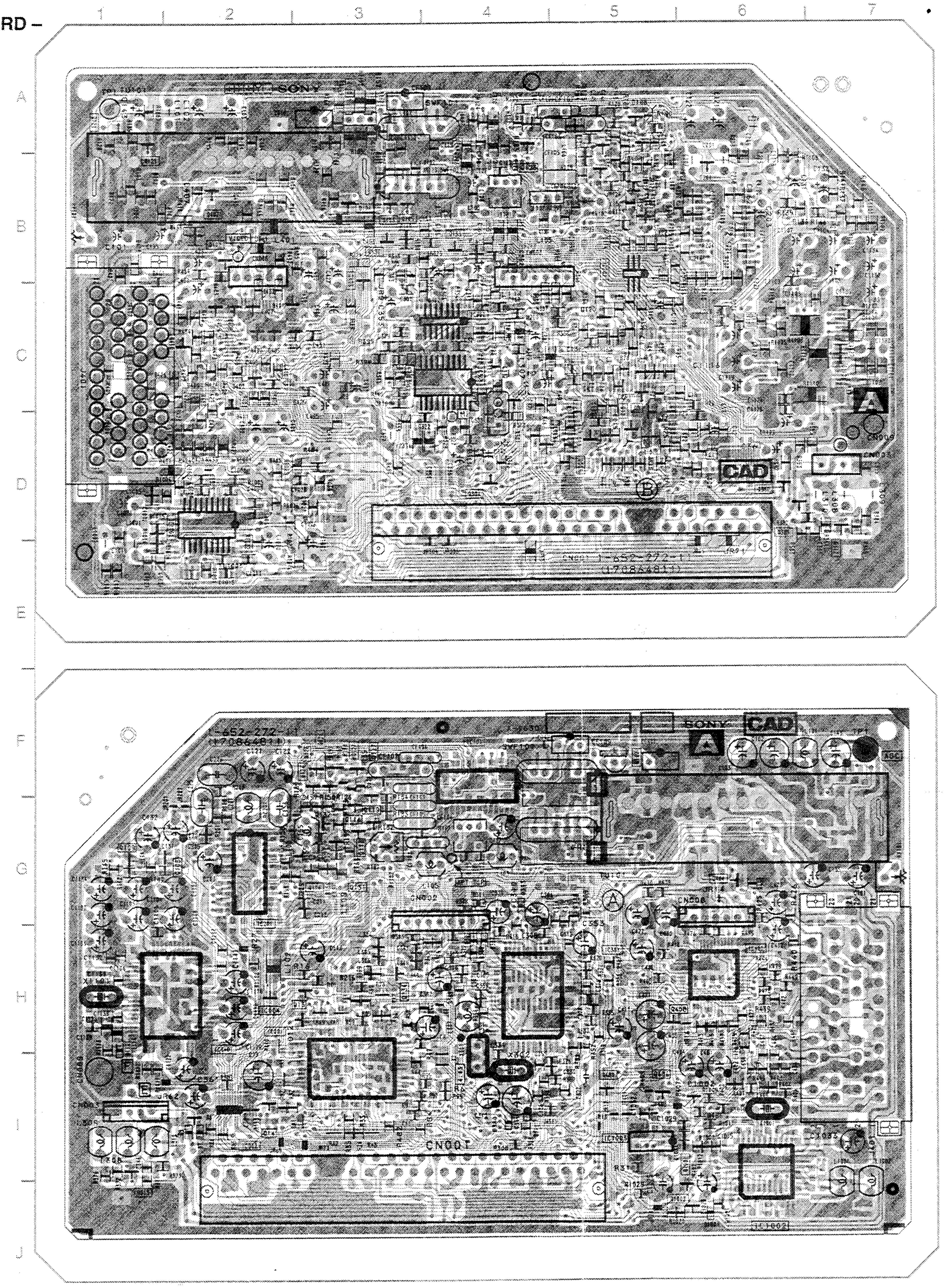

39
56
57
OP
OUT
EW - GEOMETRY
63
4
64
1
49
50
VIDER
VERTICAL
GEOMETRY
BLACK - CURRENT
STABILISER
30
WHITE P
BRI
CONTR
35
33
32
31
RGB - MATRIX
+ OUTPUT
RGB - INPUT
+ SWITCH
46
43
42
37
38
39
40



A

TUNER AUDIO CONTROL
AUDIO AMP AV SW
RGB JUNGLE YC PROCESSOR

– A BOARD –


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
SONY
CAD
A
B
CN001

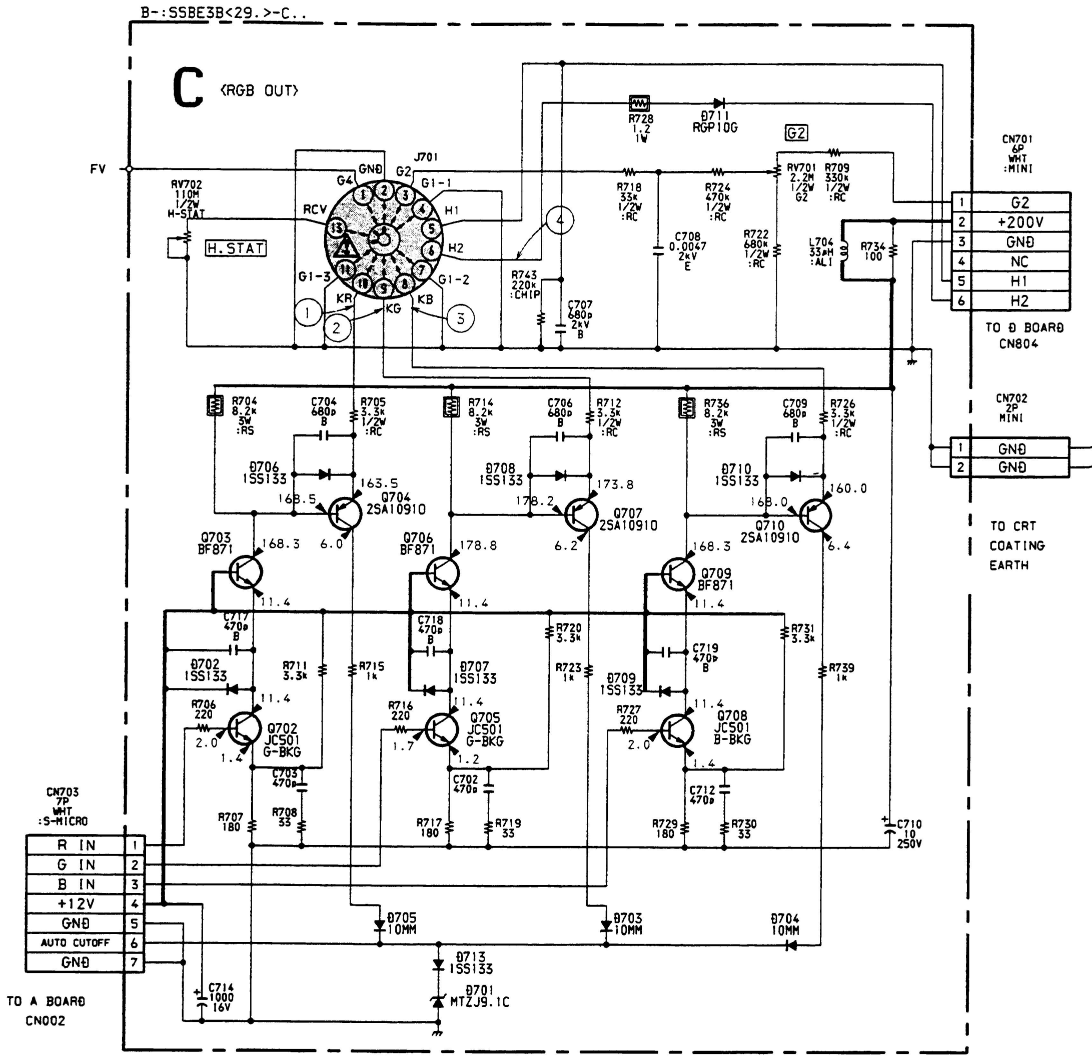
IC	
IC001	H - 2
IC002	I - 2
IC101	F - 4
IC201	G - 2
IC202	B - 5
IC301	H - 5
IC302	C - 4
IC303	C - 4
IC401	H - 6
IC1001	D - 2
IC1002	J - 6
IC1003	I - 5
IC1101	H - 2

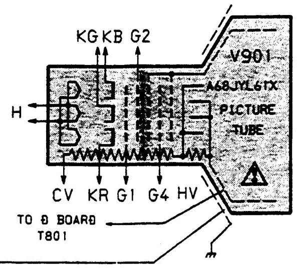
TRANSISTOR	
Q4	D - 6
Q8	C - 5
Q11	D - 5
Q12	C - 5
Q14	I - 2
Q102	F - 5, A - 3
Q103	B - 3
Q104	B - 3
Q105	B - 3
Q107	B - 5
Q108	G - 2
Q109	G - 1
Q114	G - 3
Q116	G - 3
Q117	F - 3
Q120	C - 5
Q121	A - 1
Q123	B - 4
Q124	F - 3
Q125	B - 1
Q130	B - 3
Q131	G - 3
Q132	G - 3
Q133	B - 4
Q304	D - 4
Q312	E - 7
Q313	J - 1
Q314	C - 4
Q380	D - 6
Q381	D - 6
Q401	I - 5
Q402	B - 2
Q403	B - 3
Q404	G - 6
Q1001	I - 6
Q1003	J - 5

DIODE	
D6	I - 2
D7	I - 2
D9	I - 2
D11	D - 5
D101	B - 2
D102	B - 4
D103	A - 5
D201	B - 6
D301	G - 4
D302	C - 4
D303	H - 3
D304	B - 5
D305	C - 4
D314	B - 3
D380	I - 4
D401	C - 2
D402	C - 2
D404	C - 2
D405	C - 2
D406	C - 2
D407	C - 2
D408	C - 2
D409	C - 2
D410	C - 2
D411	D - 2
D1002	I - 6
D1003	J - 6
D1101	H - 1
D1102	C - 7

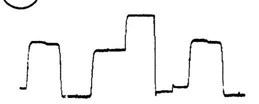
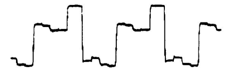
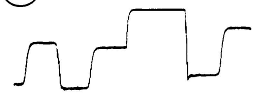
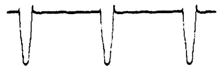
Note :

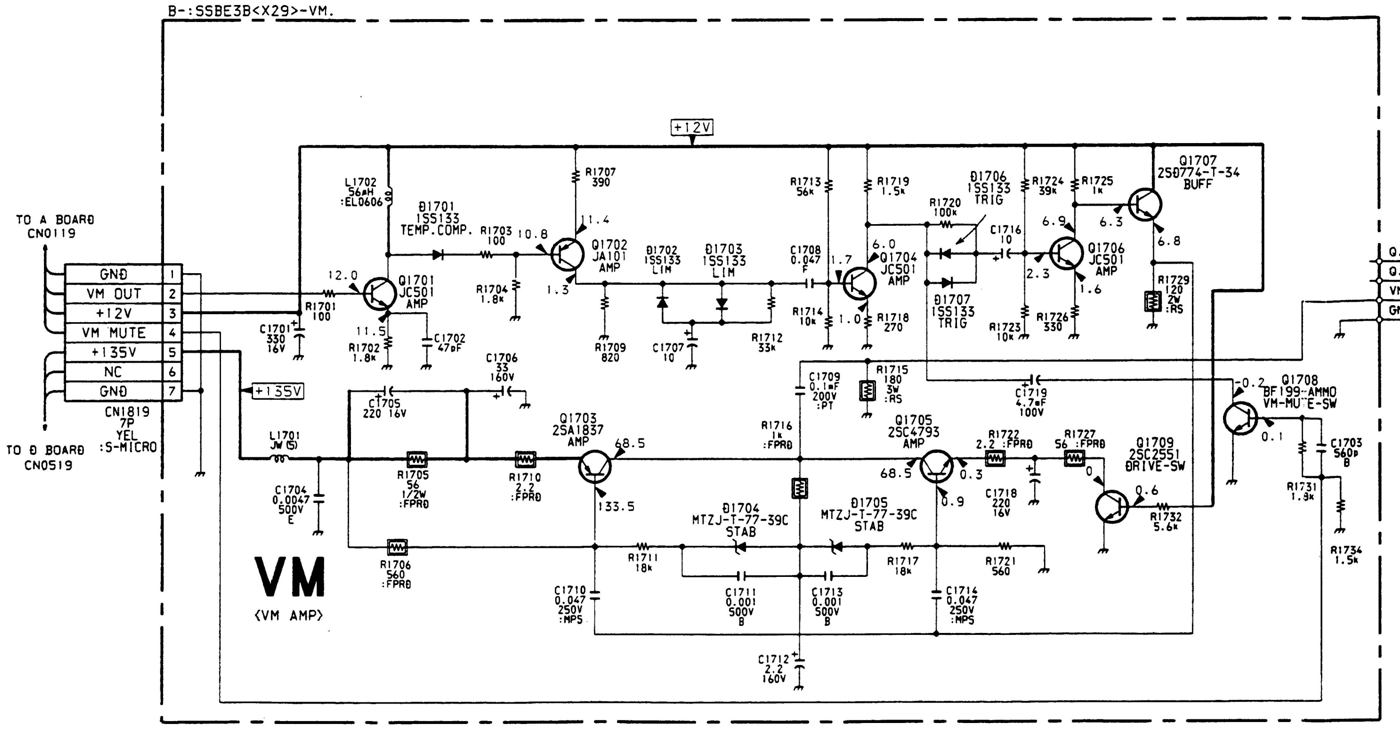
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

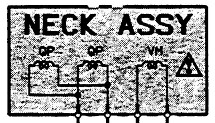

B-:SSBE3B<29.>-C..
C <RGB OUT>
FV
RV702 110M 1/2W H-STAT
H.STAT
J701
GND G2 G4 G1-1 H1 H2 G1-2 G1-3 RCV KR KG KB
R728 1.2 1W
D711 RGP10G
G2
R718 33k 1/2W :RC
R724 470k 1/2W :RC
RV701 2.2M 1/2W G2
R709 330k 1/2W :RC
C708 0.0047 2kV E
R722 680k 1/2W :RC
L704 33mH :AL1
R734 100
R743 220k :CHIP
C707 680p 2kV B
CN701 6P WHT :MINI
G2
+200V
GND
NC
H1
H2
TO D BOARD CN804
CN702 2P MINI
GND
GND
TO CRT COATING EARTH
R704 8.2k 5W :RS
C704 680p B
R705 3.3k 1/2W :RC
D706 1SS133
Q704 2SA1091O
Q703 BF871
R714 8.2k 5W :RS
C706 680p B
R712 3.3k 1/2W :RC
D708 1SS133
Q707 2SA1091O
Q706 BF871
R736 8.2k 5W :RS
C709 680p B
R726 3.3k 1/2W :RC
D710 1SS133
Q710 2SA1091O
Q709 BF871
163.5 168.5 6.0 168.3 11.4
173.8 178.2 6.2 178.8 11.4
160.0 168.0 6.4 168.3 11.4
C717 470p B
D702 1SS133
R711 3.3k
R715 1k
R706 220
Q702 JC501 G-BKG
C703 470p
C718 470p B
D707 1SS133
R720 3.3k
R723 1k
R716 220
Q705 JC501 G-BKG
C702 470p
C719 470p B
D709 1SS133
R731 3.3k
R739 1k
R727 220
Q708 JC501 B-BKG
C712 470p
2.0 1.4 1.7 1.2 2.0 1.4
R707 180
R708 33
R717 180
R719 33
R729 180
R730 33
C710 10 250V
CN703 7P WHT :S-MICRO
R IN 1
G IN 2
B IN 3
+12V 4
GND 5
AUTO CUTOFF 6
GND 7
TO A BOARD CN002
D705 10MM
D703 10MM
D704 10MM
D713 1SS133
D701 MTZJ9.1C
C714 1000 16V
① ② ③ ④


KG KB G2
V901
A68JYL61X
PICTURE TUBE
H
CV KR G1 G4 HV
TO D BOARD T801

WAVEFORMS C BOARD

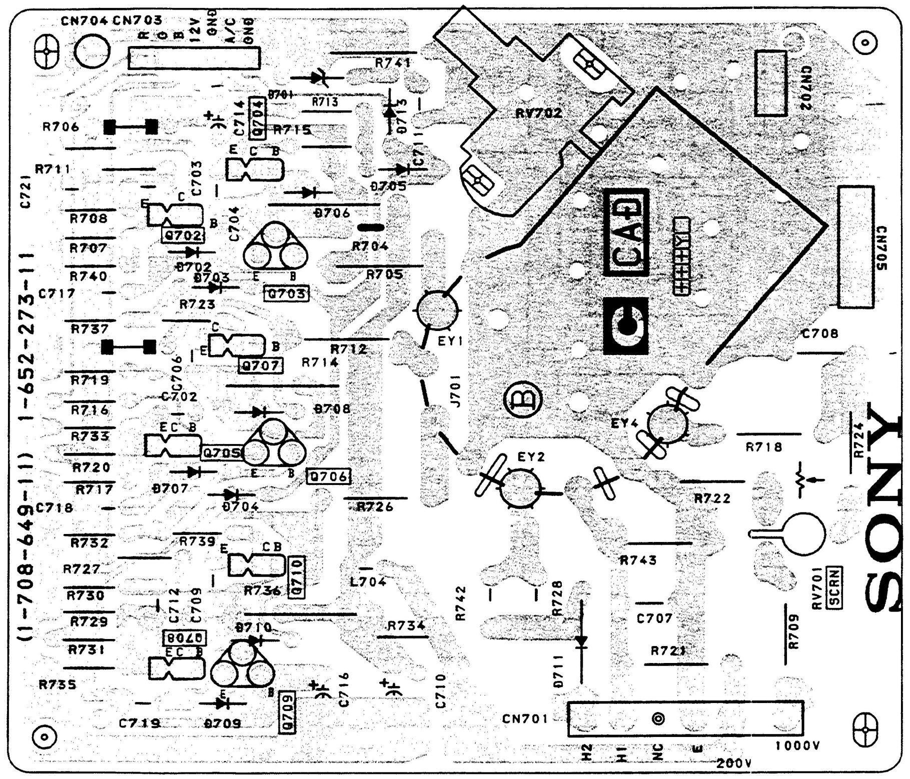
①	②	③	④
			
103 Vp-p (H)	76.0 Vp-p (H)	100 Vp-p (H)	18.5 Vp-p (H)


B-:SSBE3B<X29>-VM.
+12V
VM
<VM AMP>
TO A BOARD CN0119
GND 1
VM OUT 2
+12V 3
VM MUTE 4
+135V 5
NC 6
GND 7
CN1819 7P YEL :S-MICRO
TO D BOARD CN0519
+135V
L1702 56mH :EL0606
D1701 1SS133 TEMP.COMP.
R1703 100
R1707 390
Q1702 JA101 AMP
D1702 1SS133 LIM
D1703 1SS133 LIM
C1708 0.047 F
R1713 56k
R1719 1.5k
Q1704 JC501 AMP
R1720 100k
D1706 1SS133 TRIG
C1716 10
R1724 39k
R1725 1k
Q1706 JC501 AMP
Q1707 2SD774-T-34 BUFF
R1729 120 2W :RS
Q1701 JC501 AMP
R1701 100
R1704 1.8k
R1702 1.8k
C1701 330 16V
C1702 47p
R1709 820
C1707 10
R1712 33k
R1714 10k
R1718 270
D1707 1SS133 TRIG
R1723 10k
R1726 330
C1706 33 160V
C1705 220 16V
L1701 JW(5)
C1704 0.0047 500V E
R1705 56 1/2W :FPRO
R1710 2.2 :FPRO
Q1703 2SA1837 AMP
C1709 0.1mF 200V :PT
R1715 180 3W :RS
R1716 1k :FPRO
C1719 4.7mF 100V
Q1705 2SC4793 AMP
R1722 2.2 :FPRO
R1727 56 :FPRO
Q1709 2SC2551 DRIVE-SW
Q1708 BF199-AMMO VM-MUTE-SW
C1703 560p B
R1731 1.8k
R1732 5.6k
R1734 1.5k
C1718 220 16V
D1704 MTZJ-T-77-39C STAB
D1705 MTZJ-T-77-39C STAB
R1706 560 :FPRO
R1711 18k
R1717 18k
R1721 560
C1710 0.047 250V :MPS
C1711 0.001 500V B
C1713 0.001 500V B
C1714 0.047 250V :MPS
C1712 2.2 160V
12.0 11.5 10.8 11.4 1.3 6.0 1.7 1.0 6.9 6.3 2.3 1.6 6.8 68.5 133.5 68.5 0.3 0.9 0 0.6 -0.2 0.1
Q.P.-
Q.P.+
VM
GND

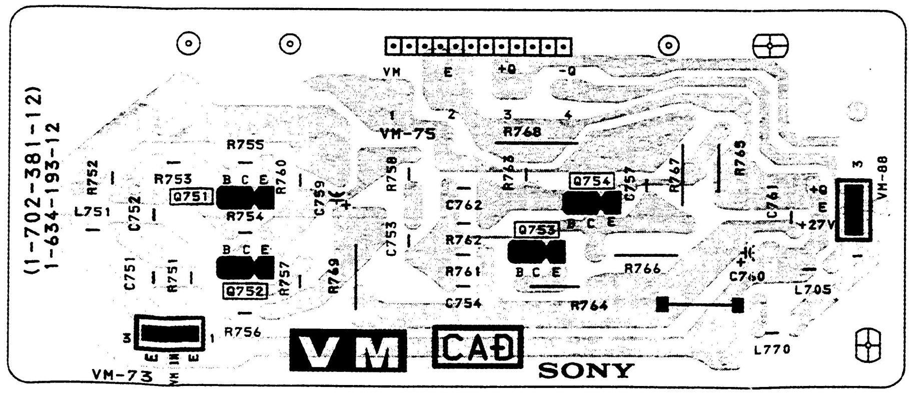

NECK ASSY
QP
QP
VM

C [RGB OUT] **VM** [VM AMP]

- C BOARD -

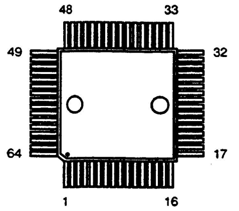

CN704 CN703
R
G
B
12V
GND
A/C
GND
R741
R706
R711
C721
R708
R707
R740
C717
R737
R719
R716
R733
R720
R717
C718
R732
R727
R730
R729
R731
R735
C719
RV702
CN702
CN705
C708
EY1
EY2
EY4
J701
R718
R724
R722
R743
R709
RV701
SCRN
C707
R721
D711
CN701
H2
H1
NC
E
1000V
200V
CAD
C
SONY
1-652-273-11
(1-708-649-11)

- VM BOARD -


(1-702-381-12)
1-634-193-12
VM
E
+Q
-Q
VM-75
R755
R753
Q751
R760
R754
R752
L751
C752
C751
R751
Q752
R757
R749
R756
C759
R758
C753
C762
R768
R762
R761
Q753
Q754
C757
R767
R769
C761
C760
R766
C754
R764
L705
L770
+27V
VM-88
VM-73
VM
CAD
SONY

5.4 SEMICONDUCTORS

TDA8366
CF70200FN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49
32
64
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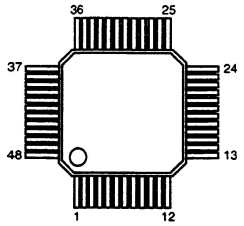
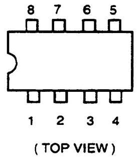
1
16

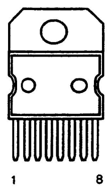
CXA1855Q
SAA7283
CXP85232


36
25
37
24
48
13
1
12

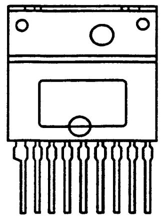
LM393
TDA7264


8 7 6 5
1 2 3 4
(TOP VIEW)

TDA7264



STRS6708



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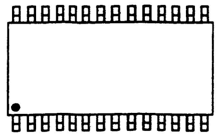
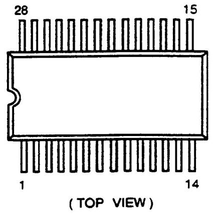
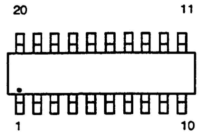


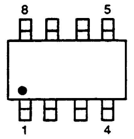
TDA9814


28
15
1
14
(TOP VIEW)

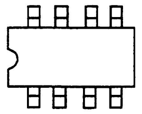
CF72306DW



CAT24C16J



BA7046
TDA2822



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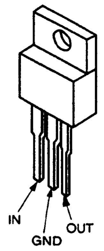
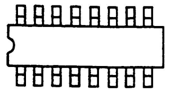
MC7805CT
LM2940T
SE135N



MC14053BF



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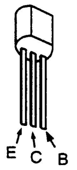
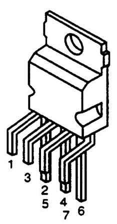
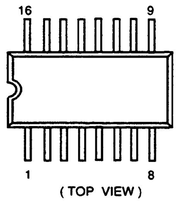
2SC2551-0
JA101
JC501TP



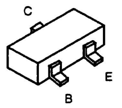
STV9379



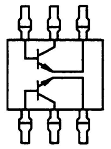
TDA4661/V2


16
9
1
8
(TOP VIEW)

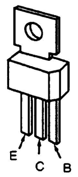
DTC144EK
DTA144EK
2SC2412K
2SA1037-G



1MX1T110



BF871



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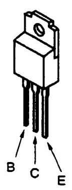
2SC4793



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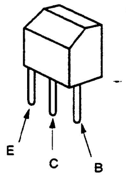

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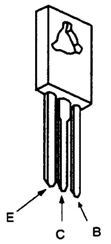

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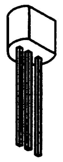

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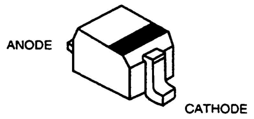
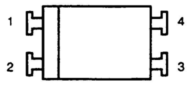

ANODE
CATHODE

TLP621GR



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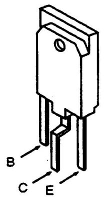
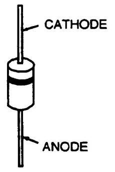
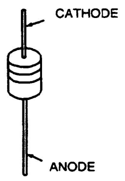


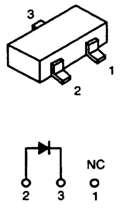
RGP10GPKG23
RGP15GPKG23
GP08DPKG23
RU-4AM
EL1Z
EU-1-V1
EU-1ZV1


CATHODE
ANODE

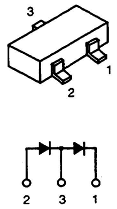
MTZJ-9.1C
MTZJ-5.1B
MTZJ-9.1
MTZJ-3.6A
MTZJ-6.8C
MTZJ-39C
1SS133


CATHODE
ANODE

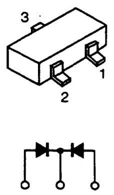
MA704WK



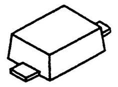
DA204K



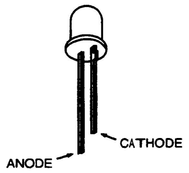
UMZ12N



MA8039
MA113



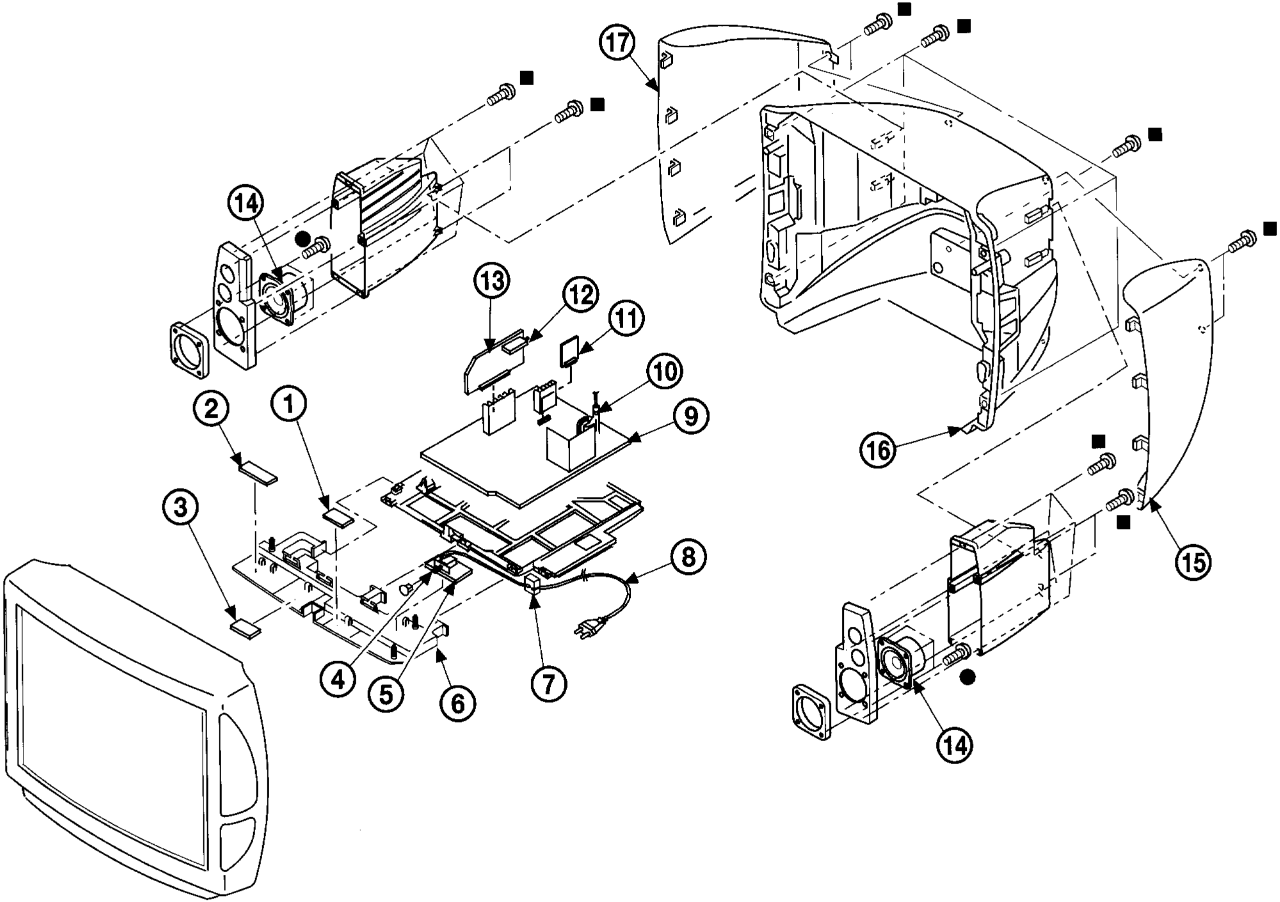
SLR-54VR3


ANODE
CATHODE

6-1. CHASSIS

■ : BVTP 4X16 7-685-663-79

● : BVTP 3X12 7-685-648-79



⑰
■
■
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■
■
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●
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⑪
⑩
⑨
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①
■
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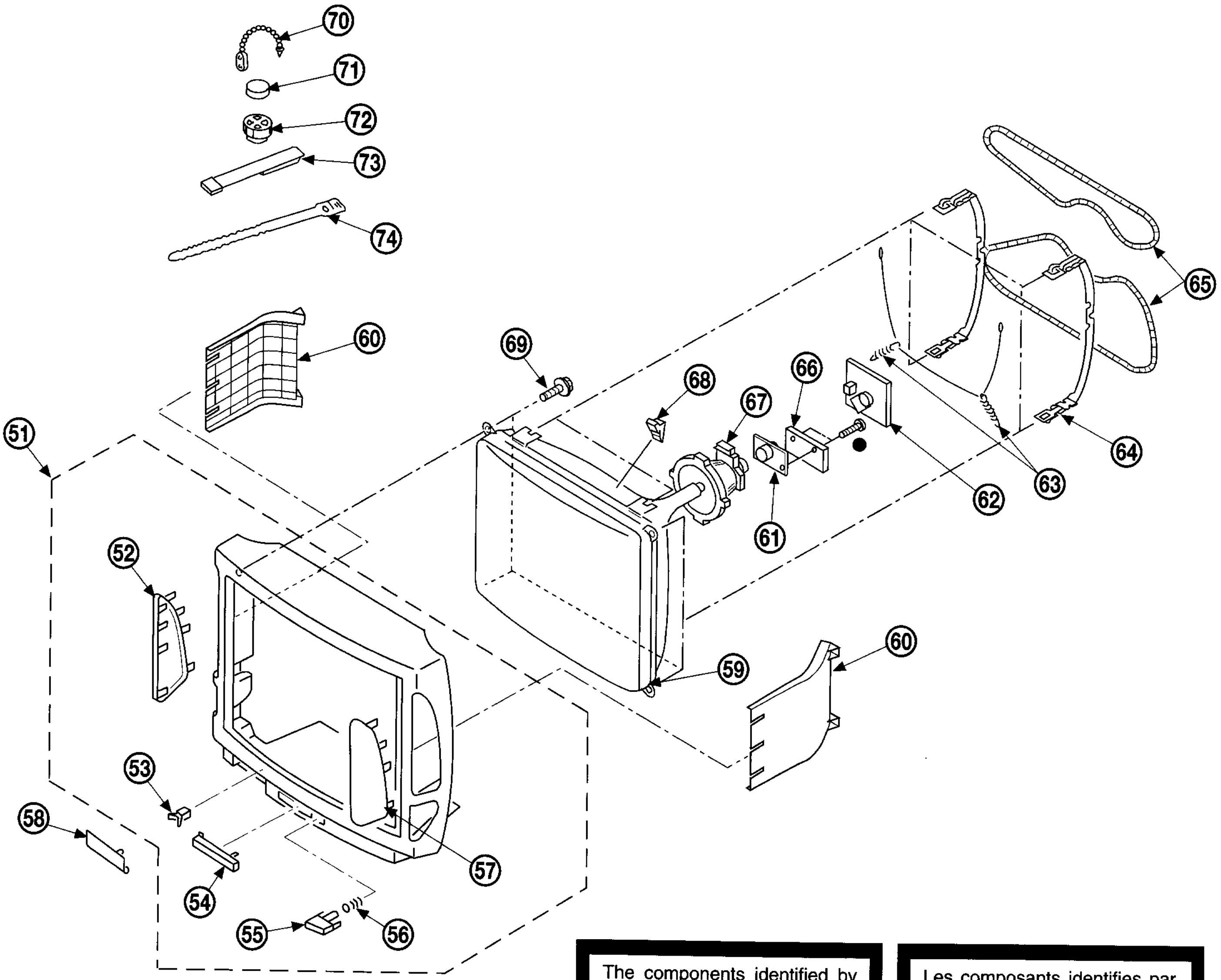
③
■
■
⑧
⑮
④
⑤
⑥
⑦
●
⑭

6-2. PICTURE TUBE

● : BVTP 3X12 7-685-648-79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55
56

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.